Housing Needs, Programs and Policies

for the

Commonwealth of Massachusetts

Prepared for the
Department of Community Affairs
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Statement of Purpose

The housing crisis persists despite an ever more bewildering array of federal, state and local programs aimed at assuring every resident a decent home in a livable environment. Because of its concern about the serious nature of housing problems in the Commonwealth today, the Department of Community Affairs commissioned this study. It was prompted by the need of public agencies throughout the state to have comprehensive, up-to-date information for planning and housing development. The effort was designed explicity to provide the data base and analysis required to clarify the following issues:

(1) How many families and elderly households in the Commonwealth need governmental assistance in order to secure decent housing at a reasonable cost? Given the quality of the Census and other available data, how can one best approximate the real magnitude of the housing problem? How great are the actual discrepancies between the private market's ability to supply housing at various prices, locations, and bedroom sizes, and the need for units in these different categories? How are unmet housing needs distributed geographically among the state's regions, cities and towns?

(2) What constitutes a "balanced " housing program? How much of this unmet need can be satisfied by making better use of the existing housing stock? How much of the need must be met through new construction ? To what extent can rehabilitation programs restore deteriorated units to an acceptable

standard? What potential do direct rent assistance approaches have for the immediate future? What are the implications of this analysis for new state legislation?

(3) What is a rational and equitable basis for allocating new construction responsibilities among the cities and towns of the Commonwealth? How should variables such as employment growth and fiscal capacity be weighed against the actual local incidence of housing needs in devising a workable allocation formula?

The introductory section explains the conceptual approach developed to resolve these questions, and highlights the study's major findings. Section II presents a detailed account of the methodology employed. Section III summarizes the major findings of the study, including the magnitude of housing needs as well as the mix of government programs necessary to meet these needs. Data is presented for the Commonwealth and the twelve Regional Planning Districts.

Care has been taken throughout to present findings in a manner most useful for those officials at the state, regional and local level who must actually form and execute housing policies within their jurisdictions. At the same time, we have sought to devise a methodology that can be adapted and further refined by these officials in the continual process of documenting local housing needs and translating such determinations into policies and programs.

I. Introduction

This report represents a comprehensive effort to develop information on the type, amount, and distribution of housing needs in the Commonwealth, together with regional housing assistance targets, recommendations for a balanced housing program and allocation guidelines for new construction.

The provision of this information is as timely as it is unique. Certainly, the problems of substandard housing, overcrowded living conditions and excessive budgetary commitments for shelter have always been with us, in the Commonwealth and in the nation as a whole. But in the post-World War years, the nature of these problems has undergone important changes:

> The patterns of metropolitan growth have led to high concentrations of the poor and of minorities in central cities where the housing stock is oldest and most deteriorated and where suitable employment opportunities are in decline;
>
> the disintegration of traditional family composition, combined with increases in life expectancy, have dramatically increased the number of elderly couples and individuals in need of low-cost shelter;
>
> and the continuing inability of the private market to produce low-cost housing has been aggravated by severe inflationary trends in the cost of land, labor and materials, so that each year a larger number of families are priced out of the housing market.

Given this situation, the role of government has continued to expand to the point

where close to one-third of all housing starts in the nation receive some form of government assistance. But if the general public accepts the need for government action, the actual form of government assistance finds less consensus, and there has been substantial dissatisfaction with shortsighted failures to consider the broader effects of public action. For example, during long periods in the 1940's and 1950's, federal FHA and VA housing insurance programs provided virtually the only new housing for hundreds of thousands of low income families. But the federal insurance programs have come under considerable criticism in retrospect for helping to foster patterns of economic and racial discrimination, detrimental to central city vitality and wasteful in the use of metropolitan land resources. The public housing programs have been even more severely condemned for their alleged failure to produce intrinsicly decent housing as well as the destructive impact of individual projects on their own neighborhoods. And, at this very moment, a nationwide scandal is unfolding in the operation of one of the basic HUD programs for housing low-income families, a scandal that involves millions of dollars and a demoralizing housing experience for thousands of low income families.

The federal experience clearly teaches the need for careful planning that considers housing functions from the perspective of the broad-ranged dynamics of metropolitan growth. Such considerations are particularly timely, for an additional result of the persistent difficulties encountered by federal housing programs is the likely diminution of the federal role in housing, at least programatically, and a complementary increase in state and local responsibilities. This increase will be further reinforced by the

stronger discretionary position of state and local governments resulting from the overall transition to federal revenue sharing and away from the categorical grant programs through which federal assistance sharing has been delivered in the past.

Here in Massachusetts, one of the leading states in the country in terms of the extent and success of its state housing programs, these trends will heighten the importance of providing housing and planning agencies at the state, regional and local level with the best possible information with which to develop and evaluate housing policies and programs. It is the purpose of the present study to meet this demand by:

- designing a method for establishing housing needs;
- employing that method to determine the current magnitude and distribution of housing needs in the Commonwealth; and
- providing a procedure through which state, regional, and local housing and planning agencies can allocate their limited housing assistance resources, specifically in relation to two major policy questions:

  how should housing assistance be distributed geographically?

  how should choices be made among available housing assistance programs?

A. The Need for Housing Assistance

With repetition, even the most ominous of statistics tend to induce fatalistic acceptance rather than animated alarm. Like holiday traffic tolls, figures documenting the "housing crisis" have become so familiar that they often fail to convey a clear sense of urgency. And the very presentation of a critically high assessment of housing need, considered in relation to the frequently limited housing assistance available, may contribute more to dismay and discouragement than to the renewal of efforts to meet the need. But for a public agency to undertake to define and quantify housing need must imply an obligation to meet it, or such an effort is an empty and wasteful exercise. And this should be made clear, at the outset, that this assessment of housing need is part of a real and ongoing process of decision-making by the Department to determine how best to apply the resources that are currently available and to establish new and if necessary higher targets for levels of housing assistance.

In the case of the present study this problem may be complicated by the assumption made throughout that optimum targets are to be formulated, both in allocating housing construction responsibilities among geographic areas and in choosing among alternative housing assistance programs. Of course, the prevalence of numerical statements should not distract attention from the underlying presence of judgments as to the definition of need and how this need should be met. These underlying judgments are detailed in the methodology section, and should be given serious attention by anyone concerned with evaluating or using the results of this study. In respect to the guidelines provided

for choosing among program options, a special cautionary point should be raised. For the overwhelming majority of the state's regions and localities, sufficient resources currently are not available to provide all of the housing assistance required. This is particularly evident in relation to the minimal appropriations for direct rent assistance and rehabilitation programs. Thus even though the optimum mix of housing assistance programs for a particular locality or region might place heavy reliance on such programs, their limited supply will probably necessitate continuing reliance on available programs of new construction. What is essential, then, is meeting the human needs for decent shelter. The method chosen for meeting these needs is important, but secondary. At least in the near future, the state will have to rely primarily on existing new construction programs. Over time, however, the Commonwealth should supplement the production programs with direct rental assistance and rehabilitation programs. This will provide a more balanced and effective housing program.

In this regard, one further note should be made of the essentially conservative assumptions followed in quantifying housing needs. Information on the housing stock was derived primarily from the 1970 United States Census of Housing, a census based on surveys made in April, 1970, and now nearly three years old. Since that time, inflationary trends in the housing market, only partially restrained by federal and local controls on rent , have continued to increase housing costs at a considerably higher rate than the rise in incomes. Moreover, when comparing the available supply of standard housing, and distribution of households by maximum rent paying abilities by the

minimum bedroom requirements, minimum assumptions concerning the degree of mismatch were employed. Our estimates of housing needs then represent a lower bound estimate. What they represent is not the final picture, but a good view of where to begin.

Housing Need Defined. For this study, housing need is defined quite simply as the shortfall (gap) between the requirements of the population, expressed in terms of dwelling unit cost and size, and the supply of "standard" units, by comparable price and size categories, on the market within each city and town. The measurement of housing requirements employed in this calculation assumes that no household should have to pay more than 25 percent of its current net income (present Federal and State rent setting standards) to obtain decent shelter, nor live in dwelling units which are overcrowded. The supply estimate assumes that only those units which are "standard" are adequate for occupancy. Other dwellings which were estimated to be either dilapadated or deteriorated, that is lack full plumbing or other structural features, represent a supply of inadequate housing which, in some circumstances, can be upgraded to standard conditions. This mismatch between the need and supply of standard housing, then, provides the gross approximation of housing need. This gross need can then be met through direct assistance to help families pay the cost of standard housing, through

the rehabilitation of substandard units, or through the construction of new housing.

This approach differs significantly from the traditional "supply and demand" model employed by private housing developers seeking to determine whether or not their product will find a market. For the purposes of private investment decisions, such an analysis answers the straightforward question: if housing can be built to certain specifications, in a given location, at a particular price, will it sell or rent? In its applications for the planning of public actions, however, this supply and demand model has apparent deficiencies. For in formulating public policy the concern is precisely with problems which the private market is unable to solve. The question for public policy makers is not whether, under existing conditions, low- and moderate-income households will agree to pay an excessive share of their income for rent, or to live in dilapadated housing, but how much they should pay, and what bedroom size and dwelling condition they should be able to obtain. In short, it is the purpose of public policy to establish norms for decent shelter, overcrowding and housing burden (rent-income ratios) which, if not met by the private market, provide targets for governmental action.

Modifying "supply and demand". Although the need to determine a mismatch between housing requirements and housing supply is clearcut conceptually, the determination of whether a given housing unit is above or below "standard" condition is a very real problem in the conduct of housing surveys. The United States Census of Housing, an important and unique source of housing data, has made a virtually complete retreat on this front in the face of continuing difficulties in the standardization of survey results. It has recently abandoned the housing condition classifications (standard, deteriorated, dilapadated) previously in use. The 1970 Census provides

only information on such objectively determinable aspects of housing condition as the presence or absence of complete plumbing facilities. Although the concept of standard supply is used in this study, there are substantial technical problems that must be dealt with to translate the objective housing measures collected by the Census into the more subjective categories of standard and substandard. These technical problems are described in detail in the methodology section.

The concept of "demand" is even more troublesome. It cannot be approximated so easily without imposing some normative assumptions. For example, consider a given family willing to pay 40 percent of its income for shelter, as measured by its actual behavior in the existing housing market, but acutely distressed by this disproportional use of its resources, and highly desirous of similar accomodations at lower cost, accomodations that it cannot find. It is possible to say that there is a demand, by such a family, for similar housing at a cost that is a more reasonable portion of its income, such as 25 percent. But the same family could as easily be described as presenting a demand for housing at 30 percent, or 20 percent, of its income. The use of the term demand in a study such as the present one, then, may be intrinsicly misleading. It is not a measure of effective demand (ability-to-pay) but what may be called "social" demand, which is society's judgment as to the amount that a given family should pay and the amount of housing space that such a family requires because of its size and family composition. For this reason, the shelter needs inventoried in this study are described as housing "requirements" or "needs" and are determined by a set of specific and consistent judgments made essentially in relation

to two primary attributes: family size and family income. The use of this social concept of housing "requirements" in place of the economic concept of effective "demand" is hardly novel or unique to the present study, since it is the approach used in most government housing policy studies. The specific assumptions that were utilized in determining housing needs, in these terms, are discussed fully in the methodological section below. It is important that those who seek to use or scrutinize the results of this study be aware of these definitions at the outset, for the estimates of housing need that result from their use make clear that unmet housing needs continue to be a major problem in Massachusetts.

B. A Balanced Housing Program

Government housing programs continue to place primary and often exclusive reliance on the construction of new housing. Several historical facts explain this emphasis on housing production. First, housing programs have, from their inception, been viewed as part of national economic policy. Incentives and subsidies for new construction were seen as one of the more useful counter-cyclical tools for increasing local employment in times of slack in the economy. The public housing program, it should be remembered, came into being during the height of the Depression. Secondly, for many years -- particularly during the immediate post-war era when the FHA, VA and Urban Renewal programs first appeared -- there were severe housing shortages throughout the country, in central city and suburb alike. Finally, it was assumed that by "bulldozing" the slums and building new dwellings for the poor, public action could dramatically improve the housing of disadvantaged households while containing the spread of blight, fire hazards and unhealthy living conditions.

In the past decade, however, the conditions of local housing markets have changed so that an exclusive reliance on new construction is almost a policy anachronism. In many of the larger cities, for example, the housing shortage of the past has been replaced by a housing surplus, with vacancy rates in some neighborhoods higher than ever. The abandonment of structurally sound rental housing by absentee owners has emerged as a major problem. And, although any objective measure of housing quality would indicate

that housing conditions have improved for the vast majority of Massachusetts residents, the continuing suburbanization of middle income families has left many inner city neighborhoods with an underutilized and deteriorated housing stock. The major cause of this decline is the fact that an increasing number of low- income households are concentrated in the central cities. Most of these households, even while spending 30 percent and more of their income for rent, cannot pay enough to cover the costs of good quality housing. Faced with lower revenues, landlords cut back on maintenance and building services, asserting that otherwise their rates-of-return could not compete with alternative investment opportunities, The decline of maintenance activities, the deterioration of building services, and the eventual abandonment of the property by landlords is an all too familiar occurance in low income neighborhoods throughout the country. Thus, inadequate incomes is a major underlying cause of blight. Where such circumstances exist, programs of rental assistance and housing rehabilitation have a significant role to play.

In communities with large elderly populations, moreover, there is growing emphasis among social planners and community health workers, on the importance of improving housing conditions for the elderly without disrupting the fabric of their daily lives. Often the wellbeing of senior citizens depends on the stability of their immediate neighborhood, and the network of informal relationships - with friends, shopkeepers, local service agencies, and churches - built up over a number of years. For such groups rental assistance, leasing arrangements, and rehabilitation of their existing dwellings can be a more humane and often less costly approach for meeting their shelter needs than new housing. With relatively fixed incomes and spiralling housing costs, the provision of

direct rental or homeownership operating cost assistance would allow many families and elderly households to remain in their familiar surroundings.

Thus, better use of the existing housing stock, lower costs, the ability to serve more households and the provision of greater freedom of choice for those in need, all argue for a more balanced housing strategy for the Commonwealth. New construction, through both private and public development, will probably continue as the major program in the state for the foreseeable future. This approach still represents the most direct strategy for augmenting supply. At the same time, state, regional, and local agencies must work toward greater flexibility in the use of rehabilitation and rent assistance as local housing markets and needs dictate.

Developing a program mix strategy. Given these conditions, a balanced housing program should be developed around three basic assumptions. First, program assistance should first make use of suitably located existing housing stock. Second, scarce government housing appropriations should be allocated among alternative programs in the most cost-effective way. so that the largest number of households can receive assistance for a given dollar amount. Finally, every town and city in the Commonwealth should assume a "fair share" of low- and moderate-income housing. This fair share depends both on the local need and the community's ability to provide jobs and services to these families.

Using these assumptions, the choice of a housing strategy for each planning region was established. Once gross housing needs were determined, the procedure for choosing an appropriate program mix was first to estimate the number of substandard units within each community that could be rehabilitated to meet local housing needs, then to identify the number of existing units of standard housing that could be occupied by low- and moderate-income families without an undue burden if their rental payments were subsidized, and finally, to assign the remainder of

the unfilled housing need to programs of new construction. The specifics of this procedure are discussed in the section on methodology. As already noted, this set of optimum guidelines sets targets for use of rent assistance and rehabilitation programs that, at present and for the immediate future, considerably exceed available resources. Regional and local planning agencies will, in the short run, continue to rely far more extensively on programs of new construction when meeting their local housing needs. But the guidelines do suggest a more flexible and effective housing strategy for the Commonwealth.

C. The "Fair Share" Plan for New Construction

In this study, housing need is initially determined on a geographic basis. The units in this analysis are, with some modifications, existing city and town boundaries in the Commonwealth. Computed in this manner, housing need expresses the extent to which the housing supply in a given community falls short of meeting the housing requirements within that same area.

In many earlier public programs of housing assistance, both in Massachusetts and throughout the country, such a needs determination was almost automatically interpreted to mean that housing assistance should be provided exclusively in relation to the needs within each community. Since a high percentage of low-income families are located within the central cores of major metropolitan areas, housing assistance has as a result been directed primarily toward these areas. For example, in the 1960's, in Standard Metropolitan Statistical Areas nationwide, approximately 80 percent of all new public housing units were constructed in central city areas, and only 20 percent in the suburban rings. In Massachusetts, the distribution has been somewhat less imbalanced, but still adheres closely to national patterns. Of approximately 83,500 subsidized units completed as of July, 1972, some 50,400 or 60 percent, are located in the 14 central cities and 33,100 or 40 percent outside of the central cities. It should be noted that, in the face of these trends, state housing programs have been quite successful in achieving a more balanced geographic distribution of new housing for persons of low and moderate income. Of all state subsidized housing only 34 percent are located in the 14 central cities.

The problem with the mechanical approach to the geographical allocation of assistance is that it isolates the housing aspect of broader metropolitan development problems to an artificial degree. This narrow conception of housing needs and program responses contributes to the inability of government programs to provide a really suitable environment, good schools and adequate public services along with standard structures. The time has come to recognize the extent to which the housing needs of low- and moderate-income families are effects, rather than causes, of metropolitan growth and development and to utilize housing assistance in a manner that will take the broader patterns of metropolitan development into account. In short, housing programs cannot be effective until they are designed to respond to the underlying dynamics of economic change and metropolitan growth, and it is a central purpose of this study to take these structural changes into account for the first time. The method of incorporating these changes into this study has been to distribute the portion of overall housing assistance provided by new construction in relation to regional employment patterns and local fiscal capacity.

1. The Mismatch of Jobs and Housing

The remarkable urban growth over the last 25 years has assumed a surprisingly consistent pattern across the state. This pattern has been characterized by a relative decline of employment in central cities as compared to their surrounding suburbs and often an absolute decline as well. Although this pattern does not hold for every metropolitan area in Massachusetts, statewide figures indicate that twenty-six "core cities" are presently losing jobs at the aggregate rate of 3.4 per cent per year, while communities outside

the core are gaining jobs at the rate of 3.1 percent per year. This has been accompanied by the selective out-migration of white middle-income families from the central cities, leaving behind the poor, the black, and the sub-employed. This residual population has been enlarged for many years by the migration of predominantly poor blacks from the south.

The forces behind these trends are technological and economic, although government housing and transportation policies have clearly exaggerated the basic market trends. Innovations in transportation and communications have changed the land use requirement of manufacturing and wholesaling. Changes in production techniques, for example, have resulted in an increased need for large, single-story buildings as manufacturing sites. Moreover, the central cities are at a disadvantage with respect to the cost and assembly of land. And just as the developments of road networds and trucking increasingly replace rail and water transport, the greatly expanded ownership of private automobiles made access to work sites no longer dependent on the public mass transportation systems that had been concentrated in the older cities, thus production enterprises could move to suburban locations without cutting themselves off from their workforce, and persons employed in central cities could move to the suburbswhere most of the new housing was being built, and commute to work by automobile.

Employment opportunities, in addition, continued to expand at a faster pace in suburban areas. But the shift in the composition of employment opportunities has been an even more critical factor. For the growth in employment within central cities has been concentrated in the white-collar and relatively skilled service jobs that are primarily available to the highly trained workers who have moved out to the suburbs.

The low-skill and semi-skill industrial jobs, for which the less educated central city poor could qualify, have declined in many of the urban cores, as industrial development centered in the suburbs. But low- and moderate- income households have not been able to move along with these potential sources of employment, for privately developed new housing in the suburbs has been almost entirely in price ranges that are far higher than their ability to pay. Publicly subsidized housing, as we have seen, is built predominantly within the central cities. And even to the extent that appropriately priced housing has been available, racial and ethnic fears have operated to prevent significant proportions of the central city populations from taking advantage of such opportunities.

The result of these trends is an increasingly evident mismatch between the location of jobs and the location of housing. Professionals, white collar employees and the highly skilled live, primarily, in the suburbs and commute to the central cities to work. Those with lower skills and less income are largely concentrated in the urban cores, while primary jobs opportunities in industry and construction are growing faster in the outlying areas. This mismatch has become increasingly more acute in recent years, and it is only in reference to these realities that public policies for housing can be formulated in an equitable and effective manner.

2. The Fiscal Capacity to Support Public Services

The geographic distribution of publically-assisted new housing should include considerations of the job and housing mismatch, but must also take note of other circumstances as well. The Commonwealth should not only attempt to maximize economic opportunities for low- and moderate-income families, but should also take into account differences in local fiscal capacities to provide public services for

additional residents.

The relative resource positions of local municipalities can be initially estimated by comparing per-capita tax bases. But this is not in itself a sufficient measure, for the existing level of demand upon those resources must be considered as well.

Even though most core cities in the Commonwealth, as already indicated, have lost industry to the suburbs, and new housing development has been concentrated in suburban areas, the tax bases of the core cities with the concentrations of commercial and industrial facilities, on the average, still possess more per capita resources than suburban communities. Central cities thus would appear to be able to finance any given level of public service expenditures -- for example, expenditures that would be associated with the addition of low - and moderate - income households to those cities -- with less of an impact on tax rates than would be the case in the suburbs. In fact, with the important exception of Boston, even when the forgone taxes resulting from the tax exempt status of educational, religious and charitable institutions are taken into account, major cities should be able in theory, to provide their citizens with the same mix of public services as any suburban community but at lower tax rates.

But such an assessment by itself is seriously deficient, for it fails to consider the existing expenditure patterns. And an examination of patterns immediately reveals critical differences in the cost, mix and level of expenditures for public services among various types of communities. Most core cities, for example, because of the age and nature of their physical structures, the density of populations and structures, and the special characteristics of city residents, are obliged to provide levels of police and

fire protection, health and hospital services and welfare and housing assistance which far exceed the financial commitments of most suburban communities. The older central cities are particularly burdened by the higher maintenance and redevelopment costs associated with the continuance, upgrading and replacement of public buildings, water and sewer systems and other older capital facilities. Thus it is only through consideration of both local taxable resources and existing public service commitments that the true relative fiscal capacity of local cities and towns can be measured. Such a measure has been designed for the present study to provide an equitable basis for allocating responsibilities for the construction of new housing for low- and moderate-income households.

The inclusion of employment growth and fiscal capacity along with local need in our allocation formula is designed to encourage an equitable sharing among cities and towns of the responsibility to provide publicly-assisted housing.

3. Designing a "Fair Share" Plan

To meet the new construction goals, a two-step approach has been taken to translate housing needs into housing assistance. First, the housing needs within each community have been separated into estimates of elderly housing needs and family housing needs. Elderly housing needs are considered to require assistance within the community in which the need is identified, on the principle that elderly citizens should, to the maximum extent possible, be offered the option of remaining in their home communities, and that the growth of employment opportunities are less relevant for the elderly in locational choices. New construction estimates to meet the housing needs of the

elderly are made on this basis. Second, non-elderly housing needs are then aggregated on a regional basis, and then redistributed among the communities within that region through a distribution formula that takes into consideration four factors:

(1) local employment growth in low and moderate paying jobs within the previous five years;

(2) total number of low and moderate paying jobs within the job vicinity of the community;

(3) fiscal capacity of the local community to support low and moderate income household

(4) and housing needs of households that now reside in the community.

The regional and local tables that form the body of this study set forth the pattern of the distribution of housing assistance derived from the application of this formula. Thus, for each region and local community there is a balanced housing program which includes estimates of the targetted number of elderly and family units of new construction as well as rehabilitation and rental assistance requirements.

II. Methodology

A. Determination of Community and Regional Housing Needs

1. An overview

The states 351 cities and towns, corresponding to the Minor Civil Divisions of the United States Census, are aggregated into thirteen planning regions, the twelve state regional planning districts and Nantucket. Within each community, housing need was established through a comparison of the housing requirements of the resident population, expressed in terms of bedroom size and cost, and the distribution of the housing supply by the same categories, excluding units failing to meet minimum health and safety standards. Housing needs of the elderly (head of household 65 years of age or older) are distinguished from the housing needs of other households (all non-elderly families and individuals). To the extent possible, the net housing requirements of each community are met through rehabilitation or rent assistance. The residual need for elderly households is then met through the construction of new units in the same community whereas new construction for the non-elderly is distributed on an equitable basis, throughout the respective planning region.

2. The Limitations of Census Data

In order to establish standards of housing need, the type of dwelling unit required by a given household should be considered as a function of that household's income, size, stage in life cycle and family composition. Thus the first step in determining total need for any given community must be an enumeration of that community's households by size, income, composition (e.g. husband and wife) and age of head.

This first step immediately raises a problem concerning the form in which current data is available. In the 1970 Census, at the level of "minor civil divisions" which correspond to the cities and towns in Massachusetts, such information is available only in the form of two-way tabulations, such as that for households by size and income [Fourth Count Summary Tape, (Housing), Item No. 117, hereinafter abbreviated FCST], and for households by type of household and income [FCST(Housing), Item No.110]. While the task of forming an estimate of three or four-way matrices from information provided in such a series of two-way marginal summary tables is formidable, the approach used in this study follows the well established technique initially developed by the Bureau of the Census itself, and often described as "iterative scaling". This approach requires estimating the intercorrelation of each set of variables. The higher order (three- or four-way) relationships are possible as a result of the availability of appropriate Census tables on the metropolitan level, for all of the SMSA's in Massachusetts. Thus, estimates of the distribution of income (following Census categories of income level) by household size, type, and age of head are initially established so that they are consistent with the interaction estimates for the SMSA and the reported two-way tables for the community (e.g. income by age of head). These estimates are then scaled to be consistent with the next two-way table (income by family size). This process continues until the initial estimates are sufficiently consistent with all known two-way margins, and the adjusted estimates then express the distribution of household characteristics for

that community in the form of the relationships among all four household characteristics: income, type, size, and age of head.

A similar process is followed to estimate, for each community, the distribution of housing supply in terms of four essential characteristics: unit size; unit housing cost; : unit condition (standard or substandard); and income of occupying household. The special difficulties encountered in determining unit condition are considered in a subsequent discussion of housing supply.

3. Community Housing Requirements

Once the appropriate estimates are derived of household characteristics, it is necessary to translate these household characteristics into a profile of housing requirements for each community. Such a translation, in the form of a frequency distribution of housing needs by each category of unit size and housing cost, depends upon assumptions as to the appropriate bedroom size and rent-income ratio for each household.

Rent-income ratio. In assessing housing needs of low and moderate income households, perhaps the most important question to be resolved concerns the portion of total family resources that should be allocated to obtain minimum shelter requisites. For this purpose, actual or desirable housing costs can be most usefully expressed in terms of a "rent-income ratio" that describes the relationship between shelter expenditures (these include payments for utilities) and household income. And it should be immediately apparent that the decision on what rent-income ratio to use in defining housing "need" is a very critical judgment.

A frequently followed guideline in housing policy analysis in the past is the assumption that the maximum dollar amount that low- and moderate-income households should be considered to afford is 25 percent of their current income for housing costs. This is clearly inadequate. For example, a family with children can probably not spend as much for housing as an elderly couple with the same income; a household with a very low income can allot only a small portion to housing if it is to afford other essentials, while a moderate-income household can more easily allot twenty or twenty-five percent of their income to housing.

In an effort to make available more detailed information on the subject, the United States Department of Labor has published a series of more comprehensive rent-income ratios that reflects the diverse consumption needs of households with various family sizes and age of head of household. For each category, a net disposable income is determine by subtracting from gross income an estimate of minimum costs for non-shelter necessities, and one-quarter of this disposable income is then assumed to be available for housing expenditures. This measure is referred to as the BLS standard budget.

Given the sharp disparities between the BLS standard budget and the fixed proportions previously used, it is reassuring to note that recent legislation has begun to reflect this need for a more complete definition of ability to pay. The Brooke Amendment, for example, sets a maximum dollar amount that low- and moderate-income households can afford to pay at 25 percent of current net income. Net income for these purposes is current income less a standard deduction for each dependent. Similiar formulas are utilized by recent Massachusetts legislation applying to public housing.

The approach used in this study is a combination of the BLS standard budget and the Brooke Amendment formula. In short, maximum rent paying ability was set at 25 percent of net income (gross income less deductions for dependents) modified in the upper income ranges according to BLS standard budget. This later modification was necessary since the legislative formula was designed to apply only to low and moderate income families, and as a result seemed inappropriate for the higher ranges.

While we have chosen to base the analysis on this legislative standard, hereafter referred to as D.C.A. standard, it should be recalled that other measures of maximum housing expenditures are possible. While complete analysis of these alternative standards is beyond the scope of this study, at the statewide level, investigation was made of the implications of using a 25 percent of current income and 35 percent of current income. Highlights of these investigations will be presented in the summary of findings. In short, the level of housing need is clearly a function of the definitions employed for the appropriate rent income ratio. Given this ambiquity, it seemed advisable to draw on existing legislative standards for this important element of the analysis.

Unit size. The size of a dwelling unit appropriate for a household, in terms of the number of bedrooms in that unit, depends on the number of household members, the number of adults, and the sex distribution of children if they are present. In this study, these criteria have been assessed as follows:

- single-person households are assumed to require either an efficiency or one bedroom unit (these size units have been consolidated to the category "small

unit" for such intermediate calculations);

- children of opposite sexes are assumed to require separate bedrooms, but two children of the same sex are assumed to share a single bedroom (at a minimum);
- households of two persons and larger are assumed to have requirements dependent upon whether the head of household is or is not a married person living with spouse, as shown in the following table:

# of persons	Head of household: husband and wife	Head of household: other
2	1 bedroom	2 bedroom
3	2	2-3
4	2-3	3
5	3	3-4+
6	3-4 +	4+
7	4+	4+

Note: All units of four and more bedrooms are consolidated into category "4+ bedrooms".

Housing Requirement Matrices. The DCA standard rent income ratio and the unit size standards as described above were applied to the household characteristic estimates for each community, formulated through the iterative scaling technique, to yield a statement of housing requirements. This statement was produced in the form of a set of matrices showing, for each classification of household by income, the number of housing units required by bedroom size and cost.

The stratifications of size and cost used in these tables essentially follow the classifications of housing cost and unit size employed in the Census, with some consolidations, as follows:

Size classes (number of bedrooms): 0-1; 2; 3; and 4+.

Gross cost classes (monthly): $0-39; 40-59; 60-79; 80-99; 100-149; 150-199; and 200+.

Gross household income classes (annual)*: 0-2000, 2000-3000, 3000-5000, 5000-7000, 7000-10,000, 10,000-15,000, 15,000-25,000, 25,000+

4. Community Housing Supply

Based on 1970 Census data, and using the iterative scaling technique discussed in paragraph II,A (1), above, an inventory was made within each community of the number of dwelling units classified by gross monthly cost and number of bedrooms. Some notes on assumptions relied on in this process are appropriate here. Owner-occupied units, for example, have been considered part of the housing supply, and thus the supply estimates reflect both sales and rental housing. Although there are special difficulties in determining the precise monthly cost of sales units, they have been included so that the question of whether new or existing owned units should be utilized to meet low- and moderate-income housing needs can be left open to consideration by state and local agencies.

The computation of supply begins with the enumeration of rental units in each cost and size category. For this purpose, the 1970 Census data were used, and therefore the classification of cost range and unit size follows the categories employed in the

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* In the final analysis, middle and upper income households, whose housing needs are unconstrained, are eliminated from the requirements analysis.

Census counts. The rental unit distributions were derived from the Census counts of occupied units in April, 1970, by gross rent and bedroom size [FCST (Housing), Item Nos. 130]. To these figures were added the number of single family owner-occupied units in each cost and size category. However, since mortgage payments, property taxes, fuel costs and associated expenses vary considerably and are difficult to estimate, monthly operating and capital expenses can only be approximated. For this purpose, the gross monthly cost of owner-occupied and vacant-for-sale units was estimated by "imputing" rents to these units. For this purpose, the ratio formed by the average rent of single-family rental units [FCST (Housing), Item No. 125] compared to the average value of owner-occupied units in each community [FCST (Housing), Item No. 121] was used to establish a "gross-rent multiplier" for owned single-family homes in the respective communities. By applying this gross rent multiplier to the value of single family homes an approximate monthly housing cost was projected for such units.

Particular note should be made here of a special category of owner-occupants about whom the Census does not collect cost information, owner-occupants of multiple-unit structures. The Census does not provide value estimates for such structures, and such owner-occupants do not, of course, pay rent. Housing costs for such owner-occupants was estimated individually for each size category by postulating a housing cost equivalent to the average rent for that size category rental unit within the same community. Similar corrections were made to compensate for units inventoried within the categories "renter-rent not specified" and "owner occupied - value not specified".

Substandard units. Rental and sales units, as noted, were cumulated by cost and size category to produce an estimate of the total year-round supply available in each category. The final step in establishing the total supply appropriate for occupancy was the elimination from the gross totals the housing units (within each size and cost category) that failed to meet minimum health and safety standards. This presented considerable problems. As explained in the introduction, the 1970 Census includes a breakdown of deteriorated units (those lacking full plumbing facilities), but does not include a count of "dilapidated" units, those with other structural deficiencies. The Census Bureau, however, has prescribed a methodology for estimating the number of deteriorated units*. The Census method consists of applying the same proportions of dilapidated to total substandard units (dilapidated plus deteriorated) in the 1960 Census to the number of deteriorated units - lacking full plumbing facilities - provided by the 1970 Census. In other words, it depends on the assumption that the proportion of dilapidated and deteriorated units in 1970 is approximately the same as in 1960. By adding together the dilapidated and deteriorated units, then, it is possible to calculate the total number of substandard units within each cost and size category. Although this methodology has obvious deficiencies, it is the best procedure currently available, and it has been followed in the present study.

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* U.S. Bureau of the Census, "Proposed Procedure for Estimating Substandard Housing in 1970".

If the method of identifying substandard housing units in the 1960 Census can be accepted as sufficiently accurate, then this 1970 estimate should not be off by any substantial amount; at least for the total numbers of units in a city or town. However, there is reason to believe that the method of identifying substandard units in the 1960 Census missed a great many of the units that were actually in substantial violation of the state's housing maintenance codes, at least in the older, built-up sections of Massachusetts cities. The State's maintenance codes for this purpose are taken as the combination of the Sanitary Code (Article II), the Electrical Code, and the Plumbing Code. "Superficial" violations of one or two provisions of these combined codes should not be counted, since "substandard" for the purpose of this study is intended as an indicator or need for direct public assistance in either rehabilitation or demolition of the unit.

Only a few cities in the Commonwealth have done comprehensive surveys of housing conditions, normally for the administration of public subsidies for rehabilitation, and most of these surveys ahve covered only the limited "code enforcement" target areas. The city of Malden did undertake a city-wide survey in 1970, rating every residential building either sound, beginning deterioration, deteriorated, heavy deterioration or dilapidated, based on an exterior inspection. In the lower three categories they identified 21.8 percent of the residential units in the city, and in the two worst categories, 7.5 percent. Clearly, the estimate of 3.6 percent substandard for Malden that resulted from the method used in this study substantially under-counts the actual number of substandard units in that city, as measured by application of the State's housing maintenance codes.

The type of survey needed to verify substandardness in relation to state codes simply is not available at the State level, nor have there been the resources in this study to develop such data for their own, more limited areas, they are urged to substitute their more accurate figures for the estimates in this study, and to adjust the sume of the needs estimates for new construction and rehabilitation for their areas accordingly.

Housing Supply Matrices. The total housing supply for each community, as adjusted by the elimination of substandard units, is presented in the form of a housing supply statement that parallels the housing requirement statement already described. It is in the form of a set of matrices, using the same classifications of household and unit characteristics already specified, the number of housing units in each bedroom size and cost category.

5. Deriving Need from the Supply and Requirement Mismatch

As a number of regional planning agencies have noted, a procedure that involves comparing total supply and requirement estimates in the form thus far derived would have an intrinsic deficiency as a measure of housing needs. Middle and upper-income households often choose units that are larger or less expensive than those required by them in terms of the standards utilized in establishing the requirement estimates. As a result, low and moderate income families in a given community, to whom those units are not available, must either pay more or consume less than what their characteristics would imply in relation to those same standards.

The matching procedure began with those individuals who need the most number of bedrooms and were able to pay the lest. If suitable standard units were available, they were assigned them, and removed from further consideration. If not, they were placed in a poo of constrained households, households who were unable to find housing of suitable size at a price they could afford.

The matrix of households was scanned in this fashion moving next to household with smaller bedroom requirements, or smaller rent paying ability. Each family was matched to the best unit available within the set of housing that was large enough and within their budget

constrain. If no such housing were available, or if it had already been assigned to another household, then the household was assumed to be part of the constrained household group. For every household whose requirements could not be met, a housing unit need was recorded at the maximum cost and minimum size level for that household.

Since this procedure was done within each of eight income classes, there is no danger that a small expensive unit currently occupied by a low income family would incorrectly be assigned a richer family who had a smaller minimum bedroom requirement. This helps to bound the possible error of the matching procedure and helps to ensure that the overall estimated need is of the proper magnitude .

It should be noted that this matching procedure identifies not only constrained households, but also arrays an estimate of the units occupied by these constrained households. This available standard stock will be the basis for the consideration of possible rental assistance programs. Both this available standard supply and the constrained households were calculated for each community and grouped into regional aggregates.

It should be noted that the housing needs identified for any given community through this methodology may arise from one or more reasons: an absolute shortage of units; the existence of substandard units; or the extent to which households pay excessive proportions of their current income for rent. While Census data is available on the absolute housing supply, it has been necessary to estimate the extent to which the latter two factors contribute to a particular community's low and moderate income housing needs. This is essential if the appropriate policy mix is to be applied to the housing problem. The next section sketches the methodology used to sort out these difficult conceptual problems.

B. Guidelines for Program Mix and Geographic Distribution

1. General Considerations

Rather than recommend expenditures for housing assistance according to local needs alone, additional criteria have been taken into account in order to assure a socially and economically rational distribution of aid. An initial distinction has been made between "elderly" (those households with head age 65 or older) and "other" households. For reasons discussed in the introduction, it was assumed that housing assistance to elderly households is to be provided in their own community on the basis of the existing distribution of need. Housing assistance for other households, however, will only in part be provided on that basis, and in part will be determined by the re-allocation among communities with a requirement based on the suitability of each community for the location of low and moderate income housing. This "fair share" reallocation will reflect community employment profiles, in terms of location and job growth, and capacity to bear public service costs associated with low- and moderate-income families.

2. Elderly Needs

The program mix estimated in this study makes extensive use of existing standard stock. The matching procedure described above produced estimates of those households who currently were paying too much rent or were consuming too few bedrooms. In addition, it produced estimates of the size and the cost of the units currently occupied by this group. Separate estimates were obtained for elderly and non-elderly. Each unit of standard "overpriced" housing estimated to be currently occupied by an elderly household was initially eligible for rental

assistance. Starting with those elderly households who were able to pay the most rent, units of suitable size from out of this pool of standard "overpriced" housing were drawn. If all these standard units were not utilized in this fashion, they were made available to someone who required less housing but could be satisfied with a larger unit. This continued until all standard housing units were assigned. In each instance this assignment required rental assistance if the household was not to continue in its position of excessive payments for housing.

The remaining elderly households were first assigned a share of the stock potentially suitable for rehabilitation. This was done separately for each size class of elderly bedroom requirements, with priority given to those households who could most easily meet their housing requirements. It should be noted that the past rehabilitation rents could well exceed the ability of these households to pay. The assumption here is that after rehabilitation, many of these units will be offered at below market rents either through rent assistance or as a result of rent reductions based on below market interest subsidized mortgages.

Those elderly households whose needs could not be satisfied by the rental assistance or rehabilitation programs outlined above, were determined to require a newly constructed unit. As noted earlier, this new unit was to be provided within the current community of residence of these elderly households.

Non-Elderly Needs. The program mix for dealing with non-elderly needs follows in part along the lines outlined above. An estimation was first obtained of those households who currently were located in overcrowded units or who paid

too large a share of their income for housing and who could be helped via a program of rental assistance . The mechanics of the assignment to this rental assistance program was the same as outlined for elderly households.

The remaining households were then summed into a regional pool and redistributed according to a "fair share" formula. Following this distribution households were then assigned either a rehabilitated unit or a new construction unit. This depended, of course, on the availability of suitable units for rehabilitation. As was the case with the elderly, the assignments to these units were first made to those households with maximum rent paying ability. Again the assumption was made that any difference between the rent paying ability of the household and the pastrehabilitation rents would be offset by rental assistance or other forms of subsidy.

These households who were assigned to a particular community on the basis of the fair share formula, but who were not assigned a rehabilated unit were assumed to require a new unit.

Care should be taken to view the estimations cautiously. Given the approximate nature of the matching procedure outlined in the previous section, the estimates of constrained households (i.e. households consuming less than the required number of bedrooms or paying more than the maximum rent permitted) and the units they currently occupy are only rough approximations reflecting minimum mismatch

assumptions. While this serves to strengthen the conclusions reached concerning the overall housing shortfall, it makes analysis of optimal programmatic mixes very difficult.

Of prime importance is the estimate of new construction needs. Since this is estimated as the residual need unsatisfied by other programs, it is especially sensitive to the nature of the mismatch assumptions outlined above. Indeed, the new construction figure must be viewed not as the target for new construction, but as the minimal new construction required to meet housing needs. In particular, to the extent that much of the size constraint which exists in the Commonwealth (e.g. families living in overcrowded conditions) is not reflected in the estimates of mismatch, the new construction needs will be understated, and in particular imply a bedroom distribution of need which could be misleading. Until the Public Use sample from the 1970 Census becomes available, then, the recommended program mix should be viewed as only a gross approximation.

The guidelines presented in the present study assumes that rehabilitation and rent supplement programs would be extensively used to meet housing need. Estimates of new construction of housing deal only with that portion of need which cannot be satisfied by these other programs. Since new construction is estimated as a residual, it is highly sensitive to errs in other sections of the analysis. In particular, it is highly sensitive to the estimates of the number of substandard units and the proportion of these units estimated to be suitable for rehabilitation.

Rehabilitation Estimates. As noted, the need determination procedure estimates the number of substandard units in each community, by bedroom size and monthly housing cost. These units were considered to be unavailable to low- and moderate-income families in computing community housing need. Some of these units, however, must be considered as available and suitable for rehabilitation programs. The

criteria used to determine rehabilitation potential was to compare the cost of the substandard units with the cost of standard units within the same community. This criteria reflects the judgment that substandard units with housing costs comparable to standard units in the same community have a significantly higher probability of successful rehabilitation, in terms of location and general physical condition, than do substandard units significantly below the housing cost of standard units. The breaking-point rent level was set, for the present study, at a monthly housing cost at or above which two-thirds of a community's standard units were priced. Thus any substandard unit with a housing cost at or above this level was inventoried as suitable for rehabilitation. This determination was made separately for each bedroom size classification, in light of the significant differences in cost levels by unit size.

Due to possible underestimation of substandard units and assumptions made about the correlation between rent and housing condition, this figure at best represents only an approximation of units that could be rehabilitated. To actually determine if these units could be rehabilitated, the structural condition and financial feasability of each unit would have to be examined individually.

C. Distribution of the Regional Pool

The final element in this procedure is the development of the fair share formula needed to distribute the regional need for new construction and rehabilitated units.

Essentially, the distribution procedure involves establishing a rating for each community, or group of communities, according to its appropriateness as a residential location for additional low- and moderate-income families, followed by the assignment to each community of a proportion of the total regional need on the basis of respective scores. The specific criteria used in establishing the distribution, and their relative weights, are as follows:

Criteria	Maximum Weights
(a) Local employment growth-increases in low- and moderate-income paying jobs within the community during the last five years.	20
(b) Total number of low- and moderate-paying jobs within the job proximity area of the community.	15
(c) Community fiscal capacity to support low- and moderate-income households.	30
(d) Number of family housing units needed by local residents in each low- and moderate-income cost and size category.	35
	100

Employment Growth

In light of discussions with Regional Planning Agency staffs, particular note was taken of the insufficiency of aggregate community employment trends as a guide to the location of low- and moderate-income housing. In developing the employment growth factor, therefore, only those job types that could be considered accessible to such income groups were considered in establishing the components of the indicator. In this regard, a problem of data availability was posed, a difficulty encountered frequently in this study, since direct measurement of employment by job type within each community is simply not available. Therefore, primary reliance

was placed on information provided by the State Division of Employment Security on average wage levels by industry within communities, and available low- and moderate wage jobs were taken to be those jobs for which wages fall below the region-wide average. Estimates of the number of relevant jobs for low income groups were derived on this basis. While this method is not precise, the relatively small weight given to employment data in the allocation formulas significantly lessens any distortion that might result, and the procedure yields, in any event, the best available approximation of trends in low and moderate wage jobs, assumed to be highly correlated with low- and semi-skilled occupations.

Employment proximity

In refining this criteria, the use of time/distance commutation studies had been considered as a source for the definition of reasonable commuting distances to jobs from each community, but those studies available are only for metropolitan areas, and most are seriously out of date. For these reasons, an indicator was developed that would take distance-to-work from each municipality into account by measuring the relative locational advantage of each community with respect to jobs without building in any assumptions as to extended commuting distances. The "commuting area" was defined as the community and all continguous communities. Thus, not only were the jobs in a specific community assumed to be available, but the jobs in contiguous communities as well.

Community fiscal capacity

The ability of a community to bear the financial burden associated with the addition of moderate- and low-income families is a necessary component of any rational and equitable formula for the distribution of housing assistance. Rather than utilize any single measure of fiscal capacity, a composite indicator was developed that included considerations of several aspects of fiscal condition and capacity. This indicator was derived initially from equalized assessed valuation, which was then adjusted by a factor determined as the ratio of that community's non-school expenditure(s) to the average non-school expenditure(s) for all communities in the region, a weighting factor that assumes that the tax base available for schools, assuming equal burdens for non-school expenditures, is an appropriate measure of relative fiscal capacity.

Housing need of local residents

For the purposes of establishing allocations, housing need was measured in terms of the net family housing needs established through this study for each community. (In this specific utilization of the results of the first part of the study, determinations of net family housing "surpluses", as explained in Part A, were employed along with determinations of net family housing "deficits".)

Note: Other possible criteria.

Additional criteria, potentially useful in formulating distribution allocations of family housing, were specifically considered, but, for various reasons, rejected. Three of these -- unemployment rate, pupil capacity of the school system, and amount of

vacant land -- deserve brief mention here.

a. Unemployment rate. Data on unemployment rates is not available for all communities. Moreover, the data which is provided is insufficient: it does not include information on job levels; and unemployment is reported by place of residence rather than by place of work. Given commutation patterns, unemployment by place of residence may have nothing to do with the existence of the appropriate levels of jobs within a region or a job proximity area.

b. Public Transportation. Like unemployment data, without a full scale analysis of transportation patterns, (particularly journey to work trips of non-elderly, and shopping and recreational or social trips of the elderly) little sense could be made of the available data on public transportation. A moments reflection indicates why this is the case. The lack of public transportation is not necessarily a sign that the community is unsuitable for low or moderate income housing. If a variety of services are located nearby, such an area could be ideal for elderly families. The presence of public transportation is not an unambigious sign of a good location for moderate and low income households. It is often mentioned that much public transportation is designed to serve commuters travelling to the CBD or other high density core areas. Yet, in many communities, it is transportation to the many and diverse suburban work sites that is of prime importance. Whether such a community is linked to the central business district by public transportation is of secondary importance.

c. Pupil capacity. The use of the pupil capacity of local school systems as an indicator was rejected in part because of a similar data problem. The information is not available in a consistent form for all cities and towns, and some areas have regional schools which would necessitate the use of average data for those communities within the school region. The major difficulty with this measure, however, is that it would essentially be a duplication of the "fiscal capacity" or "ability to pay" criteria, since school expenditures comprise a large percentage of the municipal budget.

d. Vacant land. The availability of vacant land is an important factor in determining appropriate locations of new housing construction. The shortage of sites in central city areas has considerably complicated and delayed housing development, particularly as increased recognition is taken of the relocation needs of residents of existing structures. But again, data on vacant land is not available for all communities, and a substitute means has been developed to determine whether or not a community has a sufficient amount of buildable land upon which to construct housing. Communities without such land are few in number, and can easily be identified by the Regional Planning Agencies.

Consideration is presently being given to asking each agency for a list of such communities. These municipalities would not be expected to provide the needed housing entirely through new construction.

Computation of Allocations. The procedure followed in the implementation of these allocations procedures involved the creation of a suitable fair share index. The value assigned to each community for a particular attribute were summed, over the region, and the index was formed which represented that community's share of regional total housing needs. These individual indices were then weighted by the factors outlined above and summed. The result is the community's fair share of housing allocation. It should be observed that these final indices sum to 100 percent. This weighted index for each community was then applied to the aggregate regional estimate of aggregate regional estimate of housing need previously derived. (In order to assure as rational and equitable a distribution as possible, the allocation formulas were computed separately for each cost and size category, and the total regional aggregations c housing need was allocated separately by each category.

Summary of the Findings

A. Introduction

The empirical findings that are summarized here may be studied in detail in the appendices t this report. The effort here is to highlight the major findings, and work through the methodology with a set of real numbers to illustrate the strength and possible weaknesses of the techniques employed. It should be recalled that the objective of this study has not been to set final plans for action, but to develop a data base from which regional and local planning officials could operate. The methodology was constructed to yeild precise answers where precision was possible, yet leave room for local planning officials to enter their own judgments as to both the size of the problem and the guidelines for a solution. These results, then, must be viewed as the beginning of a process, rather than a definitive statement on housing needs in Massachusetts.

This summary is divided into four sections. The first deals with the supply of houses in the Commonwealth. The second section arrays the maximum rent paying ability of households by their bedroom requirements. In the third section, estimates of mismatch between housing needs and available supply are given, while in section four, the broad outline of a balanced housing program is presented.

The summary data is intended merely to provide an introduction to the extensive data series presented in the appendices. In the appendix additional state, regional and aggregate town data is presented. In addition a separate appendix for each region has been prepared which contains a massive amount of detailed community data .

B. The Supply of Housing in the Commonwealth

The initial task of the empirical part of this study was the estimating the number of housing units by quality (standard or substandard), costs, and number of bedrooms. As described in the methodology, the first step involves the translation of the census categories regarding the presence or absence of complete plumbing into estimates of standard and substandard housing units consistent with the 1960 definition of these terms.

This exercise itself yields valuable information. Without such comparable figures for 1960 and 1970, state and local planners would not be able to establish even the rough dimensions of the changing size and spatial distribution of the substandard stock. While the Bureau of the Census recognizes this need for comparable data, post enumeration checks indicated that on a unit by unit basis the reliability of the classifications standard and sub-standard was open to question. While this no doubt was the case, the Bureau noted that the errors of misclassification tended to net out in aggregate statistics. As a result, estimates of substandard housing for a city or town are reasonable approximations of the quality of the physical housing stock in that community. It is this feature which permits a comparison of the number of substandard units across the state.

In 1970, the Commonwealth had more than 1,750,000 occupied housing units. Of these more than 67,000 were substandard. Table 1 displays estimates of standard and substandard housing in 1970 by bedroom size and housing costs. As should be expected, substandard units are concentrated in the lowest rent ranges. As shown in Table 2, while only 3.9 percent of all the units in the state were estimated to be substandard in 1970, 29.0 percent of the units costing less than $40 were substandard. There can be little doubt that standard housing costs more, and that large numbers of those who can afford

Table 1: Housing Supply by Housing Costs, Quality, and Bedrooms For Massachusetts 1970 : Standard Supply

drooms	0-40	40-60	60-80	80-100	100-150	150-200	200 or more	Total
0-1	3739	27944	44739	56824	122537	52588	17738	326126
2	3909	16664	50397	82031	220074	99149	44387	516611
3	4227	11394	37718	65626	243547	138368	87002	587882
4+	2412	4068	11795	18890	74935	55767	88887	254754
Total	14284	60070	144649	223371	661093	345872	236034	1685373

Housing Supply by Housing Costs, Quality, and Bedrooms for Massachusetts 1970: Substandard Supply

0-1	3956	14353	11841	6202	5437	841	238	42868
2	864	1923	3515	2517	3086	722	337	12964
3	609	994	1653	1421	2196	693	463	8029
4+	393	478	617	566	933	351	334	3672
Total	5822	17748	17626	10706	11652	2607	1372	67533

Table 2: Total Housing Supply by Housing Costs and Quality for Massachusetts, 1970

Cost	Total Units	Substandard Units	Percent Substandard
$0-40	20106	5822	29.0%
40-60	77818	17748	22.8
60-80	162275	17626	10.9
80-100	234077	10706	4.6
100-150	672745	11652	1.7
150-200	348479	2607	0.7
200+	237406	1372	0.6
Total	1752906	67533	3.9

to pay only minimal rents are constrained to live in substandard housing.

The problem of substandard housing is not confined to any particular region of the state. Tables 3 and 4 give the breakdown of substandard and standard housing by housing costs for each region in the state. Table 5 gives the percentage of substandard housing for each region. Only in Cape Cod is the figure less than 3.0 percent.

Tables 6 and 7 display the breakdown of standard and substandard units by bedroom size classes. Table 8 presents, for the state as a whole, the percent of the total units which are substandard for each of four bedroom categories. This table reveals that substandard units are concentrated in the smallest size category, a reflection of the large number of small units with shared bathroom facilities.

Although substandard housing is found in cities and towns throughout the Commonwealth, as shown in the appendix tables, it is particularly concentrated in the largest central cities. Table 9 gives the percent substandard stock in each of the Commonwealths nine largest central cities and for the rest of the state. The split is most revealing. These nine cities have 5.5 percent of their housing stock listed as substandard, as compared to 3.0 percent for all other communities in the state. Despite continued advances in the quality of housing in general, in 1970 one out of every sixteen of Boston's households, for example, lived in substandard housing. The concentration of substandard housing in the large cities, then, remains an important element of the housing crisis in Massachusetts.

Table 3: Standard Housing Supply by Housing Cost for Each Region

Planning Region	Housing Cost in Dollars							
	0-40	40-60	60-80	80-100	100-150	150-200	200 or more	Total Standard
Berkshire County	634	2270	5867	8141	16734	5929	3509	43084
Franklin County	433	1254	2612	3302	5879	2549	1584	17613
Lower Pioneer Valley	1640	8805	19238	31839	67839	27585	13290	170220
Mantachu-setts	935	3363	7887	11632	21863	6402	3875	55897
Central Massachu-etts	1348	5405	15203	24681	52899	17646	9294	126476
Northern Middlesex	768	2494	4320	7652	23430	134471	7375	59510
M.A.P.C.	3959	18993	48290	77604	350756	228478	169656	897736
Merrimack Valley	1212	3690	8320	12865	12865	11574	7120	75321
Old Colony	525	1788	3867	7379	24436	8794	3670	50459

ıble 3: continued

	0-40	40-60	60-80	80-100	100-150	150-200	200 or more	Total Standard
ıuth- ıstern lassachusetts	2482	11349	26506	34473	53642	15766	8995	153213
. Provi- ence area	627	1923	5853	8318	17323	5659	3141	42844
. Plymouth area	249	1088	1619	2617	6898	3262	1826	17559
. Fall River area	739	4306	9537	11373	12938	2980	1799	43672
. New Bedford area	867	4032	9497	12165	16483	3865	2229	49138
:ape Cod	275	550	2251	3492	12068	7113	6825	32574
)ukes :ounty	59	91	238	237	575	315	422	1937
Nantuckett	14	18	50	74	448	250	479	1333

Table 4: Substandard Housing Supply by Housing Cost for Each Region

Planning Region	Housing Cost (in Dollars) 0-40	40-60	60-80	80-100	100-150	150-200	200 or more	Total Standard
Berkshire County	200	463	601	445	161	36	51	1957
Franklin County	139	456	276	113	82	20	0	1086
Lower Pioneer Valley	811	2123	1149	443	562	154	79	5321
Montachusetts	508	989	769	543	338	34	32	3213
Central Massachusetts	772	1787	1776	786	936	64	61	6182
Northern Middlesex	351	921	529	360	329	120	17	2627
M.A.P.C.	1360	6568	9040	5943	1714	1714	991	33030
Merrimack Valley	501	1304	916	401	403	97	28	3650
Old Colony	168	562	489	379	279	101	15	1993

Table 4: continued

Southern Massachusetts	955	2479	1979	1218	1086	252	79	8048
Providence area	175	520	399	361	244	58	29	1786
Plymouth area	82	169	226	153	186	65	10	892
Fall River area	304	914	628	350	336	40	26	2598
New Bedford area	394	876	726	354	320	88	14	2772
Cape Cod	43	80	88	75	62	15	19	382
Dukes County	14	16	14	0	0	0	0	44
Nantucket	0	0	0	0	0	0	0	0
Total	5822	17748	17626	10706	11652	2607	1372	67533

Table 5: Substandard Units as a Percent of Total Units, By Region

Planning Region	Total Units	Substandard Units	Percent Substandard
Berkshire County	45041	1957	4.3
Franklin County	18699	1086	5.8
Lower Pioneer Valley	175541	5321	3.0
Montachusetts	59110	3213	5.4
Central Massachusetts	132658	6182	4.7
Northern Middlesex	62137	2627	4.2
M.A.P.C.	930766	33030	3.5
Merrimack Valley	78971	3650	4.6
Old Colony	52452	1993	3.8
Southeastern Massachusetts	161261	8048	5.0
A. Providence area	44630	1786	4.0
B. Plymouth area	18451	892	4.8
C. Fall River area	46270	2598	5.6
D. New Bedford area	51910	2772	5.3
Cape Cod	32956	382	1.2
Dukes County	1981	44	2.2
Nantuckett	1333	0	0.0
Total	1,752906	67533	3.9

Table 6: Standard Housing Supply by Bedroom Size for Each Region, 1970

Planning Region	Bedrooms 0-1	2	3	4+	Total units
Berkshire County	6635	12002	16908	7539	43084
Franklin County	3005	4456	6425	3727	17613
Lower Pioneer Valley	32344	51524	63623	22729	170220
Montachusetts	10814	18290	19217	7576	55897
Central Massachusetts	17847	41896	49560	17173	126476
Northern Middlesex	8096	16819	25222	9373	59510
M.A.P.C.	197744	267042	290429	142521	897736
Merrimack Valley	13168	24916	26766	10471	75321
Old Colony	8495	13855	20845	7264	50459
Southeastern Massachusetts	24863	53882	55524	18944	153213
A. Providence area	6666	13527	15800	6851	42844
B. Plymouth area	2734	6185	5833	2807	17559
C. Fall River area	7636	17591	14907	3538	43672
D. New Bedford area	7827	16579	18984	5748	49138
Cape Cod	2741	11202	12195	6436	32574
Dukes County	257	449	720	481	1937
Nantuckett	87	278	448	520	1333
Total	326126	516611	587882	254754	1,685,373

Table 7: Substandard Housing Supply By Bedroom Size for Each Region, 1970

Planning Region	Bedrooms 0-1	2	3	4	Total Units
Berkshire County	797	689	256	215	1957
Franklin County	662	155	98	171	1086
Lower Pioneer Valley	3814	749	576	182	5321
Montachusetts	1674	716	597	248	3213
Central Massachusetts	3594	1358	952	278	6182
Northern Middlesex	1801	460	284	82	2627
M.A.P.C.	22965	5454	3273	1338	33030
Merrimack Valley	2209	808	410	223	3650
Old Colony	1326	187	244	236	1993
Southeastern Massachusetts	3917	2230	1305	596	8048
A. Providence area	921	407	319	139	1786
B. Plymouth area	203	289	263	137	892
C. Fall River area	1095	968	434	101	2598
D. New Bedford area	698	566	289	219	2772
Cape Cod	85	150	48	99	382
Dukes County	24	8	6	6	44
Nantuckett	0	0	0	0	0
Total	42868	12964	8029	3672	67533

Table 8: Total Housing Supply by Bedroom Size and Quality for Massachusetts, 1970

Number of Bedrooms	Total	Substandard Units	Percent Substandard
0-1	368994	42868	11.6
2	529575	12964	2.4
3	595911	8029	1.3
4	258426	3629	1.4
Total	1,752906	67533	3.9

Table 9: Substandard Housing Stock of Large Cities in the Commonwealth of Massachusetts, 1970

	Total Units	Substandard Units	Percent Substandard
Boston	217623	14380	6.6
Cambridge	35416	2112	5.8
Springfield	53867	1645	3.5
Lynn	30962	1382	4.5
Lowell	30049	1914	6.4
Fall River	32988	1959	5.9
New Bedford	35432	2012	5.6
Somerville	28996	1209	4.2
Worcester	56617	2886	5.1
Total Ten Largest Cities	522950	29499	5.6
Rest of State	1226681	39699	3.2
State Total	1749631	69198	4.1

While this summary report of the findings can pay only brief attention to the wealth of data presented in the appendix tables, this inventory of the stock by quality, bedroom size and cost at a local and regional level is an important component in the formulation of a balanced state housing program. The tables presented here and in the appendix underline the importance of flexible programs which will enable planners to meet the particular needs of the various communities in the state. Consider , for example, the possibility of housing allowances to help households improve the quality of their housing consumption. If the criteria were set to insure that all households could spend at least $60 per month on housing, the impact would vary considerably from locality to locality. As shown in Table 10, this amount would be sufficient to cover the current costs of more than 10 percent of all standard bedroom units in Southeastern Massachusetts, but only 2.4 percent of similar units in the M.A.P.C..

The obvious differences in cost of living, size, and characteristics of the housing stock of each region need to be evaluated separately if an equitable assistance formula is to be created. The housing market can best be viewed as a variety of submarkets

Table 10: Low Cost, Standard Two Bedroom Housing Units as a Percent of Total Units By Region

Planning Region	Total Two Bedroom Standard Units	Two Bedroom Standard Renting for Less Than $60	Percent Low Cost
Berkshire County	12002	634	5.3%
Franklin County	4456	281	6.3
Lower Pioneer Valley	5154	2779	5.4
Montachusetts	18290	1144	6.3
Central Massachusetts	41896	1896	4.5
Northern Middlesex	16819	796	4.7
M.A.P.C.	267042	6310	2.4
Merrimack Valley	24916	1440	5.8
Old Colony	13855	462	3.3
Southeastern Massachusetts	53882	5483	10.2
A. Providence area	13527	776	5.7
B. Plymouth area	6185	456	7.4
C. Fall River area	17591	2188	12.4
D. New Bedford area	16579	2063	12.4
Cape Cod	11202	399	2.8
Dukes County	449	32	7.1
Nantuckett	278	17	6.1
Total	516611	20573	4.0

which provide housing of a particular size, cost, quality and location. The data presented in this report establishes a framework for the analysis of housing programs which accurately reflects the diversity of these submarkets.

Before turning to a presentation of the data on housing needs, one further aspect of supply must be considered. As outlined in the methodology section, an effort was made to array those substandard units that are potentially suitable for rehabilitation. This was based on a comparison for each bedroom size of the distribution of housing cost for standard and substandard units in each city and town. Table 11 presents the estimates of the units available for rehabilitation by bedroom size for the Commonwealth and each region. Comparison of Tables 11 and 7 yields an estimate of the percent of substandard units that were estimated to be suitable for rehabilitation. Of th more than 67,000 substandard units in the state only 19,000 or 28.5 percent were estimated to be suitable for rehabilitation.

The percent of substandard units suitable for rehab was found to vary both spatially and by bedroom class. Table 12 gives the percent suitable for rehabilitation by bedroom cla This shows that 0 to 1 bedroom units are least suitable for rehab, while three bedroom units are most suitable.

Table 13 presents the percent of substandard supply suitable for rehabilitation for each region. In Southeastern Massachusetts some 37.7 percent of all substandard units could potentially be rehabbed according to the criteria established for this report. This figure drops to 16.1 percent for Franklin County and 11.3 percent for Cape Cod.

It should be noted that the highest percentage of units suitable for rehabilitation is not always found where there are the most substandard units. Indeed often the reverse is true.

Table 11: Substandard Supply Suitable for Rehabilitation for Each Region

Planning Region	Bedrooms 0-1	2	3	4	Total Units
Berkshire County	229	294	43	36	602
Franklin County	115	48	4	8	175
Lower Pioneer Valley	1139	301	183	61	1684
Montachusetts	405	219	141	40	805
Central Massachusetts	919	458	208	78	1663
Northern Middlesex	321	163	118	24	626
M.A.P.C.	5358	1956	1322	517	9133
Merrimack Valley	542	285	83	71	981
Old Colony	317	60	79	51	507
Southeastern Massachusetts					
A. Providence area	127	135	109	27	698
B. Plymouth area	61	103	58	66	288
C. Fall River area	369	371	172	17	929
D. New Bedford area	676	274	125	45	1120
Cape Cod	13	5	14	11	43
Dukes County	0	0	0	0	0
Nantuckett	0	0	0	0	0
Total	10871	4672	2659	1052	19254

Table 12: Substandard Supply Suitable for Rehabilitation By Bedroom Size for the Commonwealth

Bedroom Size	Total Substandard	Suitable For Rehab	Percent Suitable
0-1	42868	10871	25.4
2	12964	4672	36.0
3	8029	2659	33.1
4+	3672	1052	28.6
Total	67533	19254	28.5

Table 13: Percent of Substandard Supply Suitable for Rehabilitation, By Region

Planning Region	Total Substandard	Suitable For Rehab	Percent Suitable
Berkshire County	1957	602	30.8
Franklin County	1086	175	16.1
Lower Pioneer Valley	5321	1684	31.6
Montachusetts	3213	805	25.1
Central Massachusetts	6182	1663	27.9
Northern Middlesex	2627	626	23.8
M.A.P.C.	33030	9133	27.7
Merrimack Valley	3650	981	26.9
Old Colony	1993	507	24.4
Southeastern Massachusetts	8048	3035	37.7
A. Providence area	1786	698	39.1
B. Plymouth area	892	288	32.3
C. Fall River area	2598	929	35.8
D. New Bedford area	2772	1120	40.4
Cape Cod	382	43	11.3
Dukes County	44	0	0.0
Nantucket	0	0	____
Total	67533	19254	28.5

Consider for example the situation found in the M.A.P.C.. As shown in Table 14, Boston, Cambridge, and Somerville all have decidedly higher percentages of substandard stock than other communities in the region, but only a small percentage of the units in these three communities appears to be suitable for rehabilitation. The data presented in this study tend to support the view that rehabilitation of the substandard stock should be employed throughout the region.

At this stage a note is needed on the quality of the estimate of substandard housing units. While the limitations inherent in the 1970 Census data have necessitated the use of a somewhat arbitrary procedure for the estimation of substandard housing units, it was felt that some comparable, statewide estimates, no matter how rudimentary, were essential for the analysis that follows.

Clearly there is no substitute for detailed onsite evaluation and careful market analysis of prospective rehabilitation projects. A well formulated regional planning process should include a hard count of those units which are both structurally and financially suitable for rehab. The criteria employed here makes use of the fact that higher rents paid for substandard units must be indicative of their attractive location or some other feature. This could well be misleading if these higher rents were the result of discriminatory prices charged to a minority population or some other form of market failure. In this event, the estimates of rehab suitability could be dramatically changed by more detailed analysis. Nevertheless, these measures present a first approximation of the size of the task confronting the Commonwealth. If all households currently living in substandard housing are to be moved to standard housing, 67,000 standard units would have to be built or upgraded. Even without consideration of the need for rental assistance the mere replacement of substandard stock presents a major challenge to the Commonwealth. As will be shown in subsequent sections, this replacement need is but part of the overall task of

Table 14 :

	(A) Total Units	(B) Substandard	(C) Suitable for rehab	D = B/A	E = C/B
Boston	217623	14377	3629	6.6	25.2
Cambridge	36416	2120	437	5.8	20.6
Somerville	28994	1217	349	4.2	28.7
Rest of Region	647733	15316	4718	2.4	30.8

Note: Column D is substandard units as a percentage of Total Units. Column E are the units suitable for rehabilitation as a percent of all substandard units.

meeting the goal of providing standard housing at reasonable costs to all individuals and families.

C. Housing Needs

Given the basic data on the supply of housing, the discussion now turns to housing needs. As noted in earlier sections, the relevant consideration here is not what individual households currently pay or consume, but what they need in order to receive adequate housing at a non-burdensome level of expenditure. The precise definition of the minimal needs and maximum rent paying ability is one of the most important dimensions in the formulations of housing needs. As outlined in the methodological section, minimim space requirements were set at one bedroom for an adult couple or an adult single individual with children, and one bedroom for every two children of the same sex, with no child sharing a bedroom with a sibling of the opposite sex. For single individuals without children, the minimum bedroom requirements were assumed to be either a one bedroom or efficiency unit.

The choice of the appropriate definition of maximum rent paying ability is more complex. The judgment as to what constitutes a burdensome level of housing expenditures is essentially a political decision reflecting the degree of commitment on the part of the Commonwealth to the goal of providing decent housing to all families at a reasonable cost. As a result, it was decided that the appropriate measure of ability to pay should reflect, wherever possible, existing legislative standards. Following current state and federal standards, the maximum rent paying ability was set at 25 percent of net income (gross income less a deduction for dependents). For upper income households, this measure was modified to reflect the Bureau of Labor Statistics standard budget.

Table 15 arrays the maximum rent paying ability of households according to this 25 percent of net income measure by the minimum number of bedrooms required. The data presented here has been aggregated from similiar information calculated for each city and town in the state. Under this formula, some 205,385 are estimated to be able to afford to pay only 40 dollars per month for housing.

A note of caution should be given concerning the interpretation of tables 15 to 17. These tables should not be confused with actual purchases and expenditures on the part of the consumer. At the low rent side the tables reflect households who should only have to pay a small percent of their rent, but are in fact probably paying more. Similarly, with respect to the bedroom size dimension, the tables measure the distribution of minimal need. Some families choose to purchase much more than the minimum standards, and are able to do so at a cost which represents a non-burdensome share of their gross income. These people who are able to satisfy their minimum needs within the budget constraints established in this study, need not concern the policy planner. It is an estimation of the size and distribution of the constrained group that is key to the exercise that follows.

Table 15: Maximum Rent Paying Ability* by Minimum Bedroom Requirements for Massachusetts

Bedroom Requirements	0-40	40-60	60-80	80-100	100-150	150-200	200 or more	Total
0-1	136115	64925	47286	42615	93288	87000	220980	692209
2	35994	23052	21598	22204	58949	74345	278648	514790
3	22198	10118	11411	12448	38618	43175	249244	387212
4	11078	4543	4902	4862	14073	14230	104911	158599
Total	205385	102638	85197	82129	204928	218750	853783	1752810

*Maximum rent paying ability based on 25 percent of net income (gross income less deduction for dependents) adjusted for upper income groups to correspond to the BLS standard budget.

D. The Mismatch of Housing Needs and Available Standard Supply

Each of the steps described in the sections above has used Census data to estimate the distribution of housing needs and the availability of a standard housing supply. This information alone is insufficient to establish the actual need for new construction, rehabilitation or rental assistance. This section offers a more detailed, if somewhat more speculative estimate of housing need.

As outlined in the methodology section, while the Census collected objective data on housing supply and demand separately, the data presented in the Fourth Count Summary Statistics prohibits a direct analysis of the units actually occupied. If it were possible to examine the households in each city and town, and determine their income, family size and composition, (eg. husband and wife), the number of bedrooms they actually used, and the cost of their unit, it would be a simple bookkeeping task to count the number of constrained households. But the summary tabulations presented in the Fourth Count of the Census prohibits a direct estimate of the number of people who paid too much or live in overcrowded units. Instead, it was necessary to estimate the mismatch using the techniques described in the methodology section. In brief, a maximum rent paying ability, minimum bedroom needs matrix and a matrix of the supply of standard housing by bedroom and housing cost were estimated separately for each income class. Within the respective income classes, the two matrices were scanned and each household was assigned a unit which satisfied its needs within its budget constraint if such a unit were available. The matching procedure was designed to yield minimum estimates of net housing need, while the stratification of this matching operation by income class helped to ensure that our estimates, while on the conservative side, were of the same order of magnitude as the real mismatch.

Table 16 presents the statewide estimates of housing need based on the 25 percent of net income formula. It is not surprising that the numbers are concentrated in the lowest rent ranges, but some households who can afford to pay more than $100 per month also find themselves constrained. This results both from greater need on the part of some households and higher rent levels that prevail in particular communities. Both aspects demonstrate the importance of setting policy flexible enough to meet the variation in levels of assistance required by different families in different locations.

In all, under the 25 percent of net income formula, 446,440 households are estimated to be in need of government assistance. This represents 26 percent of all households in the state. At present there is no program of sufficient size to deal with this number of families. Yet, given the relatively conservative set of assumptions employed throughout this study, even these figures may understate the true need. The figures do serve to boldly demonstrate the limited ability of current housing programs to meet the real needs of the citizens of the Commonwealth.

Table 16 also presents the distribution of housing need by maximum rent paying ability for each region in the state. Similiar tables for each community appear in the appendix. Unmet housing need is a statewide problem, that must be dealt with in each region of the Commonwealth.

While the difficulties inherent in the matching procedure reduces the reliability of the figures for individual communities, there is reason to believe that the spatial pattern of need is accurately represented. Thus, while the figures represent minimum estimates of mismatch, they are nonetheless of sufficient overall magnitude to warrant attention. There can be no excuse for failure to address that task laid out in this report. The figures presented here leave no doubt that large numbers of households in the Commonwealth are in need of housing assistance. In the next section, the discussion turns to the development of a planning framework to meet this need.

Table 16: Housing Need, By Maximum Rent Paying Ability for Regions

Planning Region	0-40	40-60	60-80	80-100	100-150	150-200	Total
Berkshire County	5294	1933	1635	478	1183	164	10689
Franklin County	2244	797	706	287	794	129	4957
Lower Pioneer Valley	21110	7048	6391	1744	4273	463	41029
Montachusetts	6733	2357	2390	680	1795	270	14225
Central Massachusetts	14381	5868	5109	1936	3382	315	30991
Northern Middlesex	6609	2177	2589	743	1840	332	14290
M.A.P.C.	99881	42746	40459	23448	31450	7064	245138
Merrimack Valley	9713	3098	3008	1027	2058	565	19469
Old Colony	5165	1986	2214	650	1107	56	11178
Southeastern Massachusetts	22165	6906	5939	2141	3743	968	41862
Providence area	4223	1704	1631	513	968	141	9180
Plymouth area	2336	815	807	390	671	105	5124
Fall River area	7011	1886	1267	619	824	635	12242
New Bedford area	8595	2501	2234	619	1280	87	15316
Cape Cod	4655	2148	1767	1113	1412	332	11427
Dukes County	305	96	72	43	99	32	647
Nantuckett	204	111	58	52	33	80	538
Total	198459	77271	72427	34342	53171	10770	446440

Table 17: Need for Rent Supplement By Region

Region	Family	Elderly	Total
Berkshire County	4242	4540	8792
Franklin County	2006	1866	3872
Lower Pioneer Valley	19559	16260	35819
Montachusetts	6230	4758	10988
Central Massachusetts	12421	12499	24920
Northern Middlesex	6603	4992	11595
M.A.P.C.	122584	89767	212351
Merrimack Valley	7606	8249	15855
Old Colony	5082	4139	9221
Southeastern Massachusetts	17467	16471	33938
Providence area	3807	3618	7425
Plymouth area	2126	2139	4265
Fall River area	4982	4716	9698
New Bedford area	6552	5998	12550
Cape Cod	5157	5925	10082
Dukes County	286	319	605
Nantuckett	329	209	538
Total	209572	169990	379562

E. A Balanced Housing Program

The previous section presented information on the amount of assistance needed if the housing needs of each household is to be met. This section arrays a set of policy options and gives estimates of possible program mixes. While throughout this section the discussion is in terms of optimal program mix, it is clear that current legislation is inadequate to carry out such a strategy. Given this fact, regional planners should procede to use those tools at hand, even if it requires the more extensive utilization of a particular housing assistance program than is suggested here. Given the overall dimension of the problem, the Commonwealth cannot afford to delay immediate action while it seeks to formulate a more ideal legislative package. Indeed, one main purpose of this study was to assist both in the short-run implementation of available programs and in the long range planning of alternative strategies.

The section on the supply of housing set forth the volume of the existing housing stock suitable for rehabilitation. It was assumed that this stock would be used first. Since this was such a small percentage of total supply. In every instance the stock suitable for upgrading was needed by a household and hence the figures presented in that section delineate the magnitude of the rehabilitation component of the balanced housing program.

From the matrix of housing needs, individuals were then assigned to available standard units through the use of direct rental assistance. Separate estimates were prepared for elderly and non-elderly. The regional totals for this plan are presented in Table 17.

Having accounted for those individuals who could be assisted through the use of the existing stock, the remaining households were assumed to be in need of new housing. These figures are presented in Table 18.

Table 18 Need for New Construction by Region

	Family	Elderly	Total
Berkshire County	448	786	1234
Franklin County	362	518	880
Lower Pioneer Valley	1400	2123	3523
Montachusetts	1015	1374	2389
Central Massachusetts	1883	2460	4343
Northern Middlesex	993	1088	2081
M.A.P.C.	10944	12758	23702
Merrimack Valley	1312	1312	2624
Old Colony	563	866	1429
Southeastern Massachusetts	2416	2413	4829
Providence area	396	648	1044
Plymouth area	195	373	568
Fall River area	1135	468	1603
New Bedford area	690	924	1614
Cape Cod	93	200	293
Dukes County	13	29	42
Nantuckett	0	0	0
Total	21542	25927	47469

While earlier remarks suggest caution with respect to the exact magnitude of each program, the figures presented here are nonetheless instructive. With more than 25 percent of the households in need of housing assistance, it should be obvious that a variety of plans is required. It would be incorrect to assume that this need could be met exclusively by using the existing housing stock. As shown earlier replacement and rehabilitation of existing substandard units deserves more attention than is evident in current legislation or appropriations.

For example, the total response of state and federal housing programs to this need during Fiscal 1972 (a year which started 14 months after the Census) amounted to construction starts on only 13,014 new and rehabitated units, plus an increase of only 3,461 units leased or receiving rental or mortagage assistance. Further detail on these housing programs for fiscal 1972 is presented in the Table 19.

These figures underscore the point that even a vastly expanded program of new construction or rehabilitation can be expected to solve only part of the housing problem. Surprisingly, Five-sixths of the estimated 25 percent of households in need of government assistance already live in standard units. The application of an effective direct assistance program, then, would permit those currently consuming adequate dwellings to remain while paying a more appropriate share of their income toward rent. Those who move to a larger unit or a new or rehabilitated unit would vacate a standard unit suitable for some other family. While one could question the exact proporfi on presented here, there can be no doubt that a major, if not the major housing program ought to be the provision of rental assistance to low and moderate income households. This has the advantage of both better utilization of the existing housing stock, with the freedom of locational choice so important in metropolitan areas that are experiencing a continued suburbanization of population and employment.

Given the regional totals, it is interesting to look behind them briefly to the data for the communities. Table 20 (p. 92-102) presents for each community the estimate of total

Table 19

INCREASES IN COMMITMENT OF FUNDS TO SUBSIDIZED HOUSING DURING FISCAL YEAR 1972, SHOWING NUMBER OF ADDITIONAL HOUSING UNITS BY PROGRAM, WHETHER UNDER MANAGEMENT OR IN PROGRESS

Construction starts on New Units or Rehabilitation

Program Area	State	Federal	State & Federal	Total
Public Housing	*2,229	2,693	-	4,922
Mortgage Subsidy Programs	53	**2,446	***4,861	7,360
Homeowners Rehabilitation Grants	-	732	-	732
Sub-Total:	2,282	5,871	4,861	13,014

Net Increases in Leasing, Rental Assistance or Homeowners Mortgage Assistance for Existing Units

Program Area	State	Federal	State & Federal	Total
Leased or Rental Assistance	*518	*939	*528	1,985
Homeowners Mortgage Asst'nc.	0	1,476	-	1,476
Grand-Total:	2,800	8,286	5,389	16,475

*Figures obtained by subtraction of August 1971 inventory from figure from August 1972 Inventory.

** Remainder of starts with Federal funds in FY 1972 after those administered by MHFA with Federal funds of 1972 are subtracted.

***This figure represents closings made during the period by M.H.F.A. with 236 and rent suppliment funds, whether from Federal funds of FY 1972 or any earlier year. Commitments made by M.H.F.A. during the period with Federal FY 1972 funds only were 2,743 units.

needs along with each of the programmatic responses: rehabilitation, rent assistance, and new construction. The elderly need for new construction is assumed to be met within the resident community while a portion of the non-elderly need for new construction is distributed according to the "fair share" formula. The length of Table 20 should be sufficient evidence as to why the city and town summaries were used only sparingly in this state report. The information needed to form this and other tables is more conveniently displayed en masse in the statistical appendix.

Table 21 (103-113) presents the fairshare formula and the distribution of units to each community within the region. As noted in the methodology section, the communities share for both rehabilitation and new construction was determined first, then the proportion of new construction or rehabilitation was determined on the basis of the availability of stock suitable for rehabilitation. If there are no funds available for rehabilitation programs of the magnitude suggested in this study, or if local planners decide that little rehabilitation should be undertaken, then the distributions made under this plan represent a need for new construction alone.

One further observation concerning Table 21 is in order. The formula presented is in terms of the percentage share of a regional total to be assigned to a particular community. In certain small towns, Census data was suppressed to ensure confidentiality. Since it was impossible to calculate these local needs for their communities, it was assumed to be zero. These communities were assigned a score and hence a fair share of targetted new construction, however, on the basis of the other factors in the distribution formula.

The distribution formulas represent suggested guidelines as to the distribution of housing construction or rehabilitation activity throughout the respective regions. As was suggested earlier, there is no reason to doubt the veracity of the spatial distribution (as opposed to the overall levels of the total needs figures). When combined with the measu

of employment growth and fiscal capacity, the result is an unambiguous ranking of communities in terms of their "fair share" of providing for regional housing needs. Even if total regional need for new or rehabilitated units are in error, these rankings remain useful for establishing local targets.

By way of an interpretive note, the distribution figures presented here clearly represent a dispersal of low- and moderate-income housing units throughout the region. A way of establishing the degree of dispersal is to compare the pre-distribution local need with the post distribution assignments. The formulas presented here make several important assumptions concerning the degree to which dispersal is needed to account for changes in the location of jobs and the distribution of rehabilitation units. Clearly, it is the sum of both rehabilitation and new construction that represents the Commonwealth's building activities, and the formula includes both in the distributable pool. If no rehabilitation is to be undertaken, then the sum of the rehab and new construction targets listed in Table 21 must be met entirely through new construction.

Since other distribution formulas could have been tried, and no doubt will be tried in the future, it is important to note that each should be judged not only by the sensibility of the items used in constructing the index, but also whether the measure produces an appropriate amount of dispersal. Again this must be left to the judgment of the appropriate planning officials and state legislators.

F. Scope of Future Research

Given the massive amount of Census data available, there is always room for further analysis. Three areas for possible extension come quickly to mind. The first would treat in a more systematic fashion the concept of maximum rent paying ability. The second would investigate ways of marshalling census and non-census data into a better inventory of units suitable for rehabilation. The third area of investigation involves the development of projections of housing needs for some future date. Each will be considered briefly.

The relationship between rent paying ability and consumption of housing is complex, and the benefits derived from providing adequate shelter to each household in the Commonwealth are difficult to measure.

Part of the exploratory research for this study generated data which would be of use in this regard. While the analysis so far has been based on a 25 percent of net income formula for maximum rent paying ability, two other formulas were considered. Both 25 and 35 percent of gross income were used. Tables 22 and 23 array maximum rent paying ability by minimum bedroom requirements for each of these two measures. It should be observed that even under the 35 percent criteria more than 100,000 households can afford to pay

Table 22: Maximum Rent Paying Ability* by Minimum Bedroom Requirements for Massachusetts

Bedroom Requirements	Rent Paying Ability (in dollars) 0-40	40-60	60-80	80-100	100-150	150-200	200 or more	Total
0-1	79104	39794	42536	36178	80923	81675	332158	692368
2	16664	8721	13092	14385	38664	47180	376085	514791
3	7348	3813	5462	6380	18009	24880	321346	387238
4*	2912	1494	1928	2379	7034	10175	132623	158545
Total	106028	53822	63018	59322	144630	163910	1162212	1752942

* Maximum rent paying ability based on 35 percent of gross income.

Table 23: Maximum Rent Paying Ability* By Minimum Bedroom Requirements for Massachusetts

Bedroom Requirements	0-40	40-60	60-80	80-100	100-150	150-200	200 or more	Total
0-1	110720	59183	47070	45278	112604	95110	222325	692290
2	23288	17757	20883	21242	66470	84710	280371	514721
3	10328	7424	9482	9756	36178	61775	252336	387279
4+	4076	2658	3625	3780	14555	23400	106430	158524
Total	148412	87022	81060	80056	229807	264995	861462	1,752,814

* Maximum rent paying ability based on 25 percent of gross income.

only $40 a month in rent.

Table 24 shows how these two formulas translate through to a distribution need for low and moderate income by maximum rent apying ability. Clearly the needs figures are sensitive to the measure employed. More importantly, these tables give a look at the depth of the need for low and moderate income housing. By isolating the most severe need in terms of inability to pay, calculations based on 35 percent of gross income are useful for planners to order priorities in cases where existing programs fall short of meeting all needs.

In this regard, it is necessary to point out that this study does not represent a full utilization of 1970 Census Data. After considerable delay, the Public Use Sample of the 1970 Census of Population was released in December. While too late to be incorporated into this study, it should be of tremendous value to future refinements of the work reported in this study. The Public Use Sample Data can be used to increase the reliability of the matching procedure, and hence increase the quality of the estimates of total need. It will also help in evaluating the effect income insufficiency has on the housing choices of low and moderate income families. This should help sharpen the findings of the current study, and place the creation of appropriate rent-income formulas needed for various legislation on firmer ground.

The Public Use Sample Data will also help in the creation of better indicies of substandard housing. Since the Census collected only objective indicators of housing quality, this must still be supplemented with local housing inventories. If as the discussion of the data for Malden indicated, our estimates of substandard housing

Table 24: Housing Needs By Maximum Rent Paying Ability for Alternative Rent Income Ratios

	Maximum Rent Paying Ability						
Rent Income Ratio	0–40	40–60	60–80	80–100	100–150	150–200	Total
35 percent of gross income	100267	26003	21720	6289	60692	14190	229161
25 percent of gross income	142698	57883	46940	59298	61882	8320	376821
25 percent of net income (modified)	198459	77271	72427	34342	53171	10770	446440

are too low, especially for the older central and core cities, the need for this analysis is all the more crucial..In the meantime, several comments can be made concerning the use of the existing substandard data. If these estimates are low, then the resulting needs figures will also be biased downward. This will be especially true in areas such as Malden where the approximations used here were most inappropriate. Likewise, the estimated need for new construction and rehabilitated units will also be biased downward. Where this is known to be the case, revised estimates for substandard housing can be integrated into the analysis and the program mixes adjusted accordingly.

The delay in release of both the Public Use Sample and the Fourth Count Summary Statistics points the need for the final area of further investigation. Even before the analysis of the 1970 data could begin, in many key ways, the census was outdated. Since regional planners are being asked to target the response to housing needs for the period 1974-1978, projections should quickly be developed.

While in the absence of a formal model of the workings of local, state, and national economies and particularly housing markets, projecting can be a risky business. Yet projection is a needed aspect of careful planning. Trends in new construction, employment, tax collection, all should be monitored in an effort to determine salient changes since 1970.

While this may be an unsatisfactory prospective, the detailed matrices of 1970 housing need for each city and town that have been produced in this study will probably not be possible to recreate with any accuracy for a future date until another census is taken.

G. Some Concluding Comments

In many respects, this report should have no conclusions. The final chapters should be written by state and local planners and elected officials as they refine the data developed by this study and summarized in this report. It would be of little value to conclude that there remains a severe housing crisis in Massachusetts, since that has long been a well established fact. It would be premature to conclude that this study presented precise road maps through some very difficult terrain. It is possible to conclude, however, that this study marks a beginning. In response to the needs of planners and government officials throughout the country, the 1970 Census marked a vast improvement in the quality of data. Nevertheless, it was our intention throughout this report, to point out the possible limitation of the data and the resulting shortcomings of the analysis. Yet, it is easy to forget that an analysis of this scope and particularly with this emphasis on spatial detail could have been impossible using 1960 Census data.

Viewed, then, in terms of a continuous planning process, the accomplishments of this study are not inconsequential. A planning framework has been established which permits proper officials to enter their judgments concerning such difficult issues as the appropriate definition of maximum rent paying ability. There is also room in the methodology to insert independent estimates of the size and spatial distribution of stock suitable for rehabilitation, or to insert information obtained from new sources of data such as the Public Use Sample referred to above. Finally, it promulgates a wide range of options for policy response.

It is this flexibility which must be at the heart of a viable planning process. Census data at best can display a static picture (and indeed now a nearly three year old picture) of the housing market. The figures will change in ensuring years due to increases in population, migration patterns, deterioration of standard buildings to become non-standard, etc.. In addition the housing that is built may have effects on employment and communities. The above considerations, together with inadequacies of the census data, make the results of the study an approximation of housing need to be interpreted with these limitations in mind. It is in mapping the dynamics of policy planning that the real hard decisions must be made. This study provides both a data base and a framework for this decision-making process.

BERKSHIRE COUNTY PLANNING REGION

	RENT SUPPLEMENT		REHAB		NEW CONS.		TOTAL NEEDS	TOTAL UNITS
	YOUNG	OLD	YOUNG	OLD	YOUNG	OLD		
ADAMS	317	310	123	85	87	164	1086	3981
ALFORD	-1	-1	-1	-1	-1	-1	-1	-1
BECKET	-1	-1	-1	-1	-1	-1	-1	-1
CHESHIRE	39	35	0	0	0	0	74	900
CLARKSBURG	41	50	5	0	36	5	137	608
DALTON	157	157	3	2	3	6	328	2173
EGREMONT	60	37	0	0	14	11	122	412
FLORIDA	-1	-1	-1	-1	-1	-1	-1	-1
GREAT BARRINGTON	225	295	16	0	21	44	601	2438
HANCOCK	-1	-1	-1	-1	-1	-1	-1	-1
HINSDALE	49	28	0	0	0	0	77	454
LANESBOROUGH	93	48	0	0	1	0	142	882
LEE	180	152	10	0	16	31	389	1856
LENOX	175	176	10	4	0	2	367	1657
MONTEREY	-1	-1	-1	-1	-1	-1	-1	-1
MOUNT WASHINGTON	-1	-1	-1	-1	-1	-1	-1	-1
NEW ASHFORD	-1	-1	-1	-1	-1	-1	-1	-1
NEW MARLBOROUGH	56	23	0	0	0	0	79	376
NORTH ADAMS	677	807	74	39	58	95	1750	6298
OTIS	-1	-1	-1	-1	-1	-1	-1	-1
PERU	-1	-1	-1	-1	-1	-1	-1	-1
PITTSFIELD	1669	1972	140	116	154	336	4387	18331
RICHMOND	24	17	0	0	0	0	41	389
SANDISFIELD	-1	-1	-1	-1	-1	-1	-1	-1
SAVOY	-1	-1	-1	-1	-1	-1	-1	-1
SHEFFIELD	113	76	10	0	27	29	255	776
STOCKBRIDGE	85	67	10	3	0	5	190	760
TYRINGHAM	-1	-1	-1	-1	-1	-1	-1	-1
WASHINGTON	-1	-1	-1	-1	-1	-1	-1	-1
WEST STOCKBRIDGE	49	43	13	0	1	5	111	419
WILLIAMSTOWN	233	227	4	6	30	53	553	2337
WINDSOR	-1	-1	-1	-1	-1	-1	-1	-1

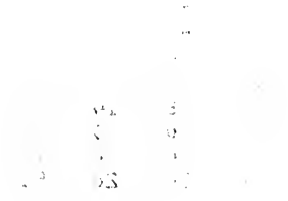
NOTE: -1 INDICATES DATA SUPPRESSION

FRANKLIN COUNTY PLANNING REGION

	RENT SUPPLEMENT		REHAB		NEW CONS.		TOTAL NEEDS	TOTAL UNITS
	YOUNG	OLD	YOUNG	OLD	YOUNG	OLD		
ASHFIELD	38	42	0	0	3	9	92	367
BERNARDSTON	41	42	0	0	0	0	83	494
BUCKLAND	61	36	1	0	21	21	140	641
CHARLEMONT	43	50	0	0	0	8	101	273
COLRAIN	31	46	0	0	0	0	77	425
CONWAY	29	0	3	0	23	13	68	294
DEERFIELD	172	117	0	0	0	0	289	1209
ERVING	19	50	0	0	13	0	82	402
GILL	30	35	0	0	0	0	65	332
GREENFIELD	661	822	54	61	100	173	1871	6338
HAWLEY	-1	-1	-1	-1	-1	-1	-1	-1
HEATH	-1	-1	-1	-1	-1	-1	-1	-1
LEVERETT	71	24	0	0	1	0	96	302
LEYDEN	-1	-1	-1	-1	-1	-1	-1	-1
MONROE	-1	-1	-1	-1	-1	-1	-1	-1
MONTAGUE	252	210	25	8	98	138	737	2844
NEW SALEM	-1	-1	-1	-1	-1	-1	-1	-1
NORTHFIELD	47	47	5	3	19	25	146	844
ORANGE	201	204	33	12	65	120	635	2042
ROWE	-1	-1	-1	-1	-1	-1	-1	-1
SHELBURNE	68	60	0	0	0	0	128	592
SHUTESBURY	14	4	0	0	5	0	23	163
SUNDERLAND	200	36	0	0	10	2	250	793
WARWICK	-1	-1	-1	-1	-1	-1	-1	-1
WENDELL	-1	-1	-1	-1	-1	-1	-1	-1
WHATELY	28	33	0	0	4	9	74	375

LOWER PIONEER VALLEY PLANNING REGION

	RENT SUPPLEMENT		REHAB		NEW CONS.		TOTAL NEEDS	TOTAL UNITS
	YOUNG	OLD	YOUNG	OLD	YOUNG	OLD		
AGAWAM	788	543	44	12	14	16	1417	6852
AMHERST	937	375	2	0	60	50	1424	4908
BELCHERTOWN	226	148	0	0	0	0	374	1434
BLANDFORD	-1	-1	-1	-1	-1	-1	-1	-1
BRIMFIELD	71	61	0	0	0	0	132	585
CHESTER	23	43	0	0	4	7	74	341
CHESTERFIELD	-1	-1	-1	-1	-1	-1	-1	-1
CHICOPEE	2037	1451	95	79	92	81	3835	19824
CUMMINGTON	-1	-1	-1	-1	-1	-1	-1	-1
EAST LONGMEADOW	176	269	6	7	0	9	458	3690
EASTHAMPTON	397	563	11	5	21	39	976	4295
GOSHEN	-1	-1	-1	-1	-1	-1	-1	-1
GRANBY	173	62	0	0	0	0	255	1486
GRANVILLE	-1	-1	-1	-1	-1	-1	-1	-1
HADLEY	150	148	0	5	0	5	308	1184
HAMPDEN	155	90	0	0	0	0	245	1222
HATFIELD	74	53	0	0	0	0	127	868
HOLLAND	-1	-1	-1	-1	-1	-1	-1	-1
HOLYOKE	1977	1659	221	318	183	326	4724	17103
HUNTINGTON	44	57	2	0	0	4	107	452
LONGMEADOW	137	287	0	0	0	0	424	4414
LUDLOW	400	374	14	9	30	19	846	5101
MIDDLEFIELD	-1	-1	-1	-1	-1	-1	-1	-1
MONSON	196	144	0	4	23	32	399	1824
MONTGOMERY	-1	-1	-1	-1	-1	-1	-1	-1
NORTHAMPTON	835	843	16	15	172	269	2200	8580
PALMER	378	313	27	29	50	69	866	3757
PELHAM	24	7	0	0	0	0	31	343
PLAINFIELD	-1	-1	-1	-1	-1	-1	-1	-1
RUSSELL	30	29	1	0	1	7	59	415
SOUTH HADLEY	441	376	20	13	6	9	865	4712
SOUTHAMPTON	48	76	0	0	0	0	124	880
SOUTHWICK	177	129	0	0	16	20	333	1806
SPRINGFIELD	7489	6289	249	232	416	753	15419	53867
TOLLAND	-1	-1	-1	-1	-1	-1	-1	-1
WALES	-1	-1	-1	-1	-1	-1	-1	-1
WARE	238	123	40	21	168	190	780	2791
WEST SPRINGFIELD	932	778	32	16	55	72	1885	9302
WESTFIELD	749	757	65	35	54	94	1754	9464
WESTHAMPTON	-1	-1	-1	-1	-1	-1	-1	-1
WILBRAHAM	184	150	9	0	15	27	385	3354
WILLIAMSBURG	73	52	32	1	20	25	203	709
WORTHINGTON	-1	-1	-1	-1	-1	-1	-1	-1



MONTACHUSETTS PLANNING REGION

	RENT SUPPLEMENT		REHAB		NEW CONS.		TOTAL NEEDS	TOTAL UNITS
	YOUNG	OLD	YOUNG	OLD	YOUNG	OLD		
ASHBURNHAM	101	129	3	5	12	25	275	1021
ASHBY	74	32	0	0	36	17	159	621
ATHOL	282	348	35	28	45	107	845	3761
AYER	498	133	5	4	24	13	677	2159
CLINTON	332	305	41	33	79	110	900	4229
FITCHBURG	1531	1548	174	80	150	262	3745	14034
GARDNER	539	480	119	82	129	221	1570	6284
GROTON	164	93	7	0	11	17	292	1492
HARVARD	361	49	0	0	63	0	473	2168
HUBBARDSTON	33	13	14	5	8	14	87	397
LANCASTER	193	119	1	0	22	24	359	1597
LEOMINSTER	977	812	39	48	155	253	2284	10019
LUNENBURG	189	143	8	1	33	47	421	2202
PETERSHAM	47	38	0	0	0	0	85	314
PHILLIPSTON	-1	-1	-1	-1	-1	-1	-1	-1
ROYALSTON	-1	-1	-1	-1	-1	-1	-1	-1
SHIRLEY	239	72	9	1	25	9	355	1414
STERLING	104	76	0	0	12	22	214	1210
TEMPLETON	175	92	38	14	78	86	483	1619
TOWNSEND	86	94	0	0	8	11	199	1273
WESTMINSTER	105	40	4	0	74	63	286	1295
WINCHENDON	200	142	24	26	51	73	516	2024

NORTHERN MIDDLESEX PLANNING REGION

	RENT SUPPLEMENT		REHAB		NEW CONS.		TOTAL NEEDS	TOTAL UNITS
	YOUNG	OLD	YOUNG	OLD	YOUNG	OLD		
BILLERICA	869	418	29	14	86	50	1466	7995
CHELMSFORD	406	430	29	10	24	43	942	8397
DRACUT	430	391	18	13	36	41	929	4890
DUNSTABLE	-1	-1	-1	-1	-1	-1	-1	-1
LOWELL	3847	3150	247	200	585	880	8889	30049
PEPPERELL	255	181	4	0	40	50	480	1706
TEWKSBURY	416	285	28	6	164	0	899	5180
TYNGSBOROUGH	160	69	0	0	40	10	279	1171
WESTFORD	220	138	14	2	18	14	406	2762

MERRIMACK VALLEY PLANNING REGION

	RENT SUPPLEMENT		REHAB		NEW CONS.		TOTAL NEEDS	TOTAL UNITS
	YOUNG	OLD	YOUNG	OLD	YOUNG	OLD		
AMESBURY	358	422	28	46	24	43	918	3706
ANDOVER	645	536	16	6	20	30	1253	6929
BOXFORD	52	42	0	0	0	0	94	1028
GEORGETOWN	110	72	0	0	31	37	250	1441
GROVELAND	93	77	5	0	11	26	212	1491
HAVERHILL	1634	2045	62	71	166	357	4335	15231
LAWRENCE	2348	2644	268	238	801	446	6745	23229
MERRIMAC	105	176	0	0	33	9	323	1249
METHUEN	906	1011	49	24	65	128	2183	10951
NEWBURY	58	104	3	3	2	10	180	1155
NEWBURYPORT	578	564	90	52	82	143	1501	5061
NORTH ANDOVER	375	343	9	0	12	16	759	4710
ROWLEY	82	58	5	2	14	19	180	864
SALISBURY	231	90	7	0	51	47	426	1285
WEST NEWBURY	38	65	5	1	0	1	110	631

M. A. P. C.

	RENT SUPPLEMENT		REHAB		NEW CONS.		TOTAL NEEDS	TOTAL UNITS
	YOUNG	OLD	YOUNG	OLD	YOUNG	OLD		
ACTON	304	116	8	0	15	10	453	3996
ARLINGTON	1938	2014	55	18	21	36	4082	17627
ASHLAND	181	170	16	5	0	5	377	2438
BEDFORD	361	151	0	0	0	2	514	3273
BELLINGHAM	220	180	0	0	63	0	463	3559
BELMONT	786	1028	11	9	58	128	2020	9328
BEVERLY	1123	1112	29	33	84	167	2548	11567
BOLTON	40	28	0	0	0	0	68	537
BOSTON	46613	23561	2253	1378	5391	5362	84558	2176231
BOXBOUROUGH	39	19	0	0	2	0	90	398
BRAINTREE	623	618	38	30	34	64	1407	9547
BROOKLINE	3418	3458	87	29	60	103	7155	22810
BURLINGTON	413	145	16	0	112	0	686	5237
CAMBRIDGE	7488	3623	278	160	938	740	13227	36416
CANTON	260	346	15	5	20	36	682	4566
CARLISLE	44	46	0	0	0	0	90	758
CHELSEA	1495	1170	93	77	203	279	3317	9928
COHASSET	159	159	1	0	11	11	341	2078
CONCORD	274	371	11	0	15	30	701	4339
DANVERS	562	558	33	11	19	34	1217	7130
DEDHAM	618	749	88	18	19	42	1534	7673
DOVER	47	38	0	0	16	18	119	1260
DUXBURY	161	194	0	0	2	12	369	2251
ESSEX	81	127	0	0	34	5	247	877
EVERETT	1580	1339	77	83	142	257	3478	13763
FOXBOROUGH	320	268	8	0	0	9	605	3781
FRAMINGHAM	1992	1190	82	47	93	92	3496	18991
FRANKLIN	387	218	10	4	17	18	654	4376
GLOUCESTER	978	950	125	120	231	436	2840	9104
HAMILTON	163	132	13	14	17	26	365	1829
HANOVER	164	137	0	0	5	9	315	2558
HINGHAM	347	401	1	8	9	23	789	5161
HOLBROOK	312	212	8	5	16	14	567	3174
HOLLISTON	211	144	18	2	19	17	411	3166
HOPKINTON	148	140	0	0	6	12	306	1676
HUDSON	385	367	46	24	25	42	889	4439
HULL	494	242	0	2	0	0	738	2763
IPSWICH	328	269	13	17	13	16	676	3269
LEXINGTON	583	558	48	16	20	38	1263	8748
LINCOLN	203	36	22	0	0	0	261	1890

M. A. P. C.

	RENT SUPPLEMENT		REHAB		NEW CONS.		TOTAL NEEDS	TOTAL UNITS
	YOUNG	OLD	YOUNG	OLD	YOUNG	OLD		
LITTLETON	15?	163	0	0	5	18	338	1833
LYNN	439?	42o2	127	168	357	733	10041	30962
LYNNFIELD	21?	171	10	0	4	13	416	2969
MALDEN	235?	227o	84	104	163	312	5293	18802
MANCHESTER	17?	162	0	0	0	2	342	1597
MARBLEHEAD	63?	698	36	5	30	52	1455	7156
MARLBOROUGH	90?	584	63	39	108	136	1835	8357
MARSHFIELD	40?	244	33	10	13	16	720	4125
MAYNARD	26?	316	28	20	32	77	740	3030
MEDFIELD	15?	167	5	0	0	10	333	2330
MEDFORD	1727	219?	83	48	75	181	4313	19548
MEDWAY	137	159	16	0	0	0	312	2043
MELROSE	747	1031	25	15	24	61	1903	10046
MIDDLETON	87	70	0	0	0	4	161	1124
MILFORD	54?	497	37	35	78	123	1319	6020
MILLIS	8	98	0	0	0	0	179	1554
MILTON	45?	954	0	0	0	9	1415	7937
NAHANT	11?	91	0	2	9	14	232	1237
NATICK	85?	643	24	11	43	64	1638	8851
NEEDHAM	63?	708	14	9	24	45	1430	8600
NEWTON	232?	2393	121	42	88	152	5117	26956
NORFOLK	88	36	5	0	29	26	184	1041
NORTH READING	211	121	18	13	8	11	382	2945
NORWELL	128	105	16	7	1	7	264	2048
NORWOOD	804	728	56	23	97	144	1852	9096
PEABODY	1223	1071	105	62	99	130	2690	14142
QUINCY	3088	3387	161	133	112	224	7105	28488
RANDOLPH	609	406	17	0	18	22	1072	7291
READING	348	432	0	1	16	27	824	6386
REVERE	1789	1424	93	110	113	185	3714	14026
ROCKLAND	397	337	22	33	24	67	880	4174
ROCKPORT	215	418	24	7	13	36	713	2200
SALEM	1759	1500	63	83	291	425	4121	13631
SAUGUS	659	603	17	17	15	27	1338	7229
SCITUATE	381	380	18	0	16	37	832	4553
SHARON	181	190	13	0	7	16	407	3404
SHERBORN	73	31	0	0	0	0	104	881
SOMERVILLE	5219	3531	169	184	609	246	9958	28994
SOUTHBOROUGH	118	109	3	0	6	8	244	1569
STONEHAM	542	543	0	5	37	66	1193	6392

M. A. P. C.

	RENT SUPPLEMENT		REHAB		NEW CONS.		TOTAL NEEDS	TOTAL UNITS
	YOUNG	OLD	YOUNG	OLD	YOUNG	OLD		
STOUGHTON	513	456	1	0	11	17	1008	6381
STOW	56	71	0	0	9	24	160	1095
SUDBURY	170	106	7	0	0	0	283	3274
SWAMPSCOTT	338	518	11	9	5	18	899	4304
TOPSFIELD	105	44	0	0	0	0	149	1355
WAKEFIELD	597	689	33	14	34	59	1426	7699
WALPOLE	430	341	18	0	7	11	807	4770
WALTHAM	2243	1484	130	78	282	308	4525	18210
WATERTOWN	1682	1499	47	34	31	53	3346	12651
WAYLAND	202	182	0	0	0	2	386	3607
WELLESLEY	513	656	29	35	27	64	1324	7820
WENHAM	90	67	0	0	0	0	157	955
WESTON	188	145	0	0	0	0	333	2752
WESTWOOD	240	214	40	0	5	9	508	3528
WEYMOUTH	1511	1189	82	50	51	76	2959	15581
WILMINGTON	325	244	18	8	18	26	639	4340
WINCHESTER	564	474	9	0	32	38	1117	6431
WINTHROP	692	693	26	28	23	43	1505	6392
WOBURN	906	704	49	19	110	177	1965	10598
WRENTHAM	157	139	0	0	5	14	315	1602

OLD COLONY PLANNING REGION

	RENT SUPPLEMENT		REHAB		NEW CONS.		TOTAL NEEDS	TOTAL UNITS
	YOUNG	OLD	YOUNG	OLD	YOUNG	OLD		
ABINGTON	290	247	16	5	18	33	609	3456
AVON	93	105	0	0	0	0	198	1421
BRIDGEWATER	244	182	16	5	52	78	577	3054
BROCKTON	3097	2446	150	189	340	596	6820	27688
EAST BRIDGEWATER	212	193	14	0	14	32	465	2340
EASTON	221	173	10	0	33	68	505	3189
HALIFAX	106	66	3	0	0	2	177	937
HANSON	138	122	16	1	57	0	334	1913
PEMBROKE	236	151	30	0	17	22	456	2992
WEST BRIDGEWATER	123	89	30	21	20	0	283	1689
WHITMAN	322	363	13	9	12	35	754	3764

SOUTHEASTERN MASSACHUSETTS PLANNING REGION

FALL RIVER SUB-AREA

	RENT SUPPLEMENT		REHAB		NEW CONS.		TOTAL NEEDS	TOTAL UNITS
	YOUNG	OLD	YOUNG	OLD	YOUNG	OLD		
FALL RIVER	3796	3649	483	306	888	268	9390	32988
FREESTON	61	81	22	8	84	14	270	1181
SOMERSET	412	503	31	2	36	78	1062	5392
SWANSEA	318	270	30	9	27	24	678	3744
WESTPORT	395	213	46	4	100	84	842	2957
NEW BEDFORD SUB-AREA								
ACUSHNET	282	160	40	26	31	32	571	2285
DARTMOUTH	526	507	60	29	83	127	1332	5938
FAIRHAVEN	453	608	58	36	48	96	1299	5165
MARION	101	140	0	0	0	0	241	1054
MATTAPOISETT	180	104	13	12	0	0	309	1401
NEW BEDFORD	4939	4443	458	399	504	649	11392	35432
ROCHESTER	71	36	20	1	24	20	172	618
PLYMOUTH SUB-AREA								
CARVER	114	76	6	0	25	31	252	742
KINGSTON	274	202	8	0	0	2	486	1808
LAKEVILLE	108	87	4	0	23	40	262	1225
MIDDLEBOROUGH	444	403	83	32	45	99	1106	4153
PLYMOUTH	714	840	63	20	24	45	1706	6449
PLYMPTON	21	9	21	0	10	19	80	367
WAREHAM	451	522	40	14	68	137	1232	3719
PROVIDENCE SUB-AREA								
ATTLEBOROUGH	840	828	78	43	101	171	2061	10142
BERKLEY	55	12	6	0	51	32	156	570
DIGHTON	74	90	0	0	0	10	174	1353
MANSFIELD	275	324	34	14	16	45	708	2925
NO ATTLEBOROUGH	476	493	41	78	26	49	1163	5787
NORTON	302	144	10	7	17	17	497	2395
PLAINVILLE	108	134	35	6	0	5	288	1372
RAYNHAM	89	58	0	0	19	17	193	1857
REHOBOTH	141	133	34	14	15	32	369	1829
SEEKONK	242	212	12	4	43	62	575	3230
TAUNTON	1205	1130	136	159	108	208	2996	13190

CAPE COD PLANNING REGION

	RENT SUPPLEMENT		REHAB		NEW CONS.		TOTAL NEEDS	TOTAL UNITS
	YOUNG	OLD	YOUNG	OLD	YOUNG	OLD		
BARNSTABLE	1036	1179	6	2	18	38	2270	6702
BOURNE	714	375	0	0	7	10	1106	3635
BREWSTER	103	99	0	0	0	0	202	668
CHATHAM	239	384	3	0	0	0	626	1705
DENNIS	362	602	0	2	7	18	991	2476
EASTHAM	79	121	0	0	0	0	200	706
FALMOUTH	810	710	0	0	13	23	1556	5266
HARWICH	241	579	6	0	14	48	888	2234
MASHPEE	121	81	0	0	0	0	202	407
ORLEANS	126	274	0	0	0	0	400	1191
PROVINCETOWN	346	246	6	5	16	12	591	1190
SANDWICH	198	141	0	0	17	27	383	1383
TRURO	94	39	0	0	0	0	133	340
WELLFLEET	81	122	8	2	0	6	219	688
YARMOUTH	607	1022	12	0	1	18	1660	4345

DUKES COUNTY PLANNING REGION

	RENT SUPPLEMENT		REHAB		NEW CONS.		TOTAL NEEDS	TOTAL UNITS
	YOUNG	OLD	YOUNG	OLD	YOUNG	OLD		
CHILMARK	-1	-1	-1	-1	-1	-1	-1	-1
EDGARTOWN	82	86	0	0	13	29	210	695
GAY HEAD	-1	-1	-1	-1	-1	-1	-1	-1
GOSNOLD	-1	-1	-1	-1	-1	-1	-1	-1
OAK BLUFFS	85	76	0	0	0	0	161	392
TISBURY	119	157	0	0	0	0	276	903
WEST TISBURY	-1	-1	-1	-1	-	-1	-1	-1
NANTUCKET TOWN								
NANTUCKET	329	209	0	0	0	0	538	1333

Table 21: Housing Need Allocation by Region and Community

BERKSHIRE COUNTY PLANNING REGION

	INDEX	ALLOCATIONS	
		REHAB UNITS	NEW UNITS
ADAMS	10.41	90.	0.
ALFORD	0.42	0.	4.
BECKET	0.83	0.	7.
CHESHIRE	1.02	0.	9.
CLARKSBURG	2.62	5.	18.
DALTON	3.94	3.	31.
EGREMONT	1.75	0.	15.
FLORIDA	0.61	0.	5.
GREAT BARRINGTON	6.71	16.	42.
HANCOCK	1.43	0.	12.
HINSDALE	2.77	0.	24.
LANESBOROUGH	2.07	0.	18.
LEE	2.65	10.	13.
LENOX	5.34	10.	36.
MONTEREY	1.03	0.	9.
MOUNT WASHINGTON	0.04	0.	0.
NEW ASHFORD	0.57	0.	5.
NEW MARLBOROUGH	0.87	0.	8.
NORTH ADAMS	9.76	74.	11.
OTIS	0.66	0.	6.
PERU	0.10	0.	1.
PITTSFIELD	24.70	140.	74.
RICHMOND	1.61	0.	14.
SANDISFIELD	0.29	0.	3.
SAVOY	0.14	0.	1.
SHEFFIELD	2.76	10.	14.
STOCKBRIDGE	2.02	10.	7.
TYRINGHAM	3.02	0.	26.
WASHINGTON	1.50	0.	13.
WEST STOCKBRIDGE	1.17	10.	0.
WILLIAMSTOWN	6.93	4.	56.
WINDSOR	0.26	0.	2.

FRANKLIN COUNTY PLANNING REGION

	INDEX	ALLOCATIONS	
		REHAB UNITS	NEW UNITS
ASHFIELD	1.89	0.	9.
BERNARDSTON	2.17	0.	10.
BUCKLAND	2.83	1.	13.
CHARLEMONT	1.01	0.	5.
COLRAIN	2.47	0.	12.
CONWAY	3.06	3.	12.
DEERFIELD	4.52	0.	22.
ERVING	2.74	0.	13.
GILL	2.58	0.	12.
GREENFIELD	29.26	54.	87.
HAWLEY	0.22	0.	1.
HEATH	0.41	0.	2.
LEVERETT	1.10	0.	5.
LEYDEN	1.38	0.	7.
MONROE	0.12	0.	1.
MONTAGUE	14.19	25.	44.
NEW SALEM	1.21	0.	6.
NORTHFIELD	4.53	5.	17.
ORANGE	10.16	33.	16.
ROWE	2.87	0.	14.
SHELBURNE	4.01	0.	19.
SHUTESBURY	1.64	0.	8.
SUNDERLAND	3.21	0.	15.
WARWICK	0.68	0.	3.
WENDELL	0.28	0.	1.
WHATELY	1.46	0.	7.

MONTACHUSETTS PLANNING REGION

	INDEX	ALLOCATIONS	
		REHAB UNITS	NEW UNITS
ASHBURNHAM	2.47	3.	35.
ASHBY	2.33	0.	36.
ATHOL	3.16	35.	13.
AYER	2.81	5.	38.
CLINTON	7.86	41.	80.
FITCHBURG	16.46	174.	79.
GARDNER	10.11	119.	36.
GROTON	2.36	7.	29.
HARVARD	3.03	0.	47.
HUBBARDSTON	1.20	14.	4.
LANCASTER	3.35	1.	50.
LEOMINSTER	17.90	39.	236.
LUNENBURG	5.19	8.	72.
PETERSHAM	0.22	0.	3.
PHILLIPSTON	0.14	0.	2.
ROYALSTON	0.28	0.	4.
SHIRLEY	2.19	9.	25.
STERLING	3.05	0.	47.
TEMPLETON	3.75	38.	20.
TOWNSEND	1.48	0.	23.
WESTMINSTER	7.19	4.	106.
WINCHENDON	3.49	24.	30.

CENTRAL MASSACHUSETTS PLANNING REGION

	INDEX	ALLOCATIONS	
		REHAB UNITS	NEW UNITS
AUBURN	5.06	26.	119.
BARRE	0.78	0.	22.
BERLIN	0.52	0.	15.
BLACKSTONE	1.45	17.	24.
BOYLSTON	1.20	15.	19.
BROOKFIELD	0.59	0.	17.
CHARLTON	1.65	25.	22.
DOUGLAS	0.70	5.	15.
DUDLEY	1.90	12.	42.
EAST BROOKFIELD	0.66	0.	19.
GRAFTON	4.07	27.	90.
HARDWICK	1.07	0.	31.
HOLDEN	4.05	1.	115.
HOPEDALE	1.20	14.	20.
LEICESTER	2.40	0.	69.
MENDON	0.72	0.	21.
MILLBURY	3.53	54.	47.
MILLVILLE	1.16	33.	0.
NEW BRAINTREE	0.36	0.	10.
NORTH BROOKFIELD	0.96	8.	20.
NORTHBOROUGH	2.34	15.	52.
NORTHBRIDGE	2.68	44.	33.
OAKHAM	0.24	0.	7.
OXFORD	2.18	16.	46.
PAXTON	2.10	0.	60.
PRINCETON	0.64	0.	18.
RUTLAND	0.91	3.	23.
SHREWSBURY	5.17	2.	146.
SOUTHBRIDGE	4.68	79.	55.
SPENCER	2.37	37.	31.
STURBRIDGE	1.64	10.	37.
SUTTON	1.12	20.	12.
UPTON	0.73	0.	21.
UXBRIDGE	2.45	50.	20.
WARREN	1.33	26.	12.
WEBSTER	5.45	36.	120.
WEST BOYLSTON	2.61	3.	72.
WEST BROOKFIELD	2.46	0.	70.
WESTBOROUGH	5.50	0.	157.
WORCESTER	19.37	398.	156.

LOWER PIONEER VALLEY PLANNING REGION

	INDEX	ALLOCATIONS	
		REHAB UNITS	NEW UNITS
AGAWAM	4.84	44.	67.
AMHERST	3.82	2.	85.
BELCHERTOWN	0.64	0.	15.
BLANDFORD	0.27	0.	6.
BRIMFIELD	0.41	0.	9.
CHESTER	0.29	0.	7.
CHESTERFIELD	0.26	0.	6.
CHICOPEE	8.56	95.	101.
CUMMINGTON	0.26	0.	6.
EAST LONGMEADOW	3.63	6.	77.
EASTHAMPTON	2.21	11.	40.
GOSHEN	0.28	0.	6.
GRANBY	0.80	0.	18.
GRANVILLE	0.44	0.	10.
HADLEY	1.34	0.	31.
HAMPDEN	1.64	0.	37.
HATFIELD	0.38	0.	9.
HOLLAND	0.35	0.	8.
HOLYOKE	8.09	185.	0.
HUNTINGTON	0.30	2.	5.
LONGMEADOW	4.45	0.	102.
LUDLOW	3.21	14.	59.
MIDDLEFIELD	0.21	0.	5.
MONSON	1.02	0.	23.
MONTGOMERY	0.32	0.	7.
NORTHAMPTON	5.13	16.	101.
PALMER	3.03	27.	42.
PELHAM	0.34	0.	8.
PLAINFIELD	0.19	0.	4.
RUSSELL	0.45	1.	9.
SOUTH HADLEY	2.45	20.	36.
SOUTHAMPTON	0.82	0.	19.
SOUTHWICK	1.26	0.	29.
SPRINGFIELD	16.31	249.	124.
TOLLAND	0.20	0.	5.
WALES	0.27	0.	6.
WARE	3.82	40.	47.
WEST SPRINGFIELD	7.53	32.	140.
WESTFIELD	5.28	65.	56.
WESTHAMPTON	0.39	0.	9.
WILBRAHAM	3.05	9.	61.
WILLIAMSBURG	1.23	28.	0.
WORTHINGTON	0.24	0.	5.

NORTHERN MIDDLESEX PLANNING REGION

	INDEX	ALLOCATIONS	
		REHAB UNITS	NEW UNITS
BILLERICA	14.07	29.	163.
CHELMSFORD	22.11	29.	272.
DRACUT	7.36	18.	82.
DUNSTABLE	0.0	0.	0.
LOWELL	31.60	247.	183.
PEPPERELL	2.48	4.	30.
TEWKSBURY	14.13	28.	164.
TYNGSBOROUGH	3.94	0.	54.
WESTFORD	4.30	14.	45.

MERRIMACK VALLEY PLANNING REGION

	INDEX	ALLOCATIONS	
		REHAB UNITS	NEW UNITS
AMESBURY	3.80	28.	43.
ANDOVER	10.22	16.	174.
BOXFORD	4.12	0.	77.
GEORGETOWN	3.32	0.	62.
GROVELAND	3.01	5.	51.
HAVERHILL	11.14	62.	145.
LAWRENCE	22.82	268.	156.
MERRIMAC	3.27	0.	61.
METHUEN	9.71	49.	131.
NEWBURY	2.24	3.	39.
NEWBURYPORT	5.48	90.	12.
NORTH ANDOVER	11.10	9.	197.
ROWLEY	2.72	5.	45.
SALISBURY	4.33	7.	73.
WEST NEWBURY	2.72	5.	46.

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M. A. P. C.

	INDEX	ALLOCATIONS	
		REHAB UNITS	NEW UNITS
ACTON	0.52	8.	78.
ARLINGTON	1.14	55.	132.
ASHLAND	0.40	16.	50.
BEDFORD	0.30	0.	50.
BELLINGHAM	0.54	0.	88.
BELMONT	1.00	11.	153.
BEVERLY	0.89	29.	118.
BOLTON	0.28	0.	46.
BOSTON	18.66	2253.	818.
BOXBOUROUGH	0.26	0.	42.
BRAINTREE	1.04	38.	133.
BROOKLINE	1.84	87.	215.
BURLINGTON	1.01	16.	151.
CAMBRIDGE	3.97	278.	375.
CANTON	1.31	15.	201.
CARLISLE	0.31	0.	50.
CHELSEA	1.46	93.	148.
COHASSET	0.44	1.	71.
CONCORD	0.66	11.	97.
DANVERS	0.82	33.	102.
DEDHAM	1.67	88.	186.
DOVER	0.46	0.	76.
DUXBURY	0.39	0.	65.
ESSEX	0.36	0.	60.
EVERETT	1.32	77.	140.
FOXBOROUGH	0.43	8.	63.
FRAMINGHAM	1.55	82.	174.
FRANKLIN	0.46	10.	66.
GLOUCESTER	1.26	125.	83.
HAMILTON	0.39	13.	51.
HANOVER	0.38	0.	62.
HINGHAM	0.56	1.	90.
HOLBROOK	0.52	8.	77.
HOLLISTON	0.52	18.	68.
HOPKINTON	0.34	0.	56.
HUDSON	0.53	46.	41.
HULL	0.29	0.	47.
IPSWICH	0.40	13.	53.
LEXINGTON	0.95	48.	109.
LINCOLN	0.44	22.	51.

	INDEX	ALLOCATIONS	
		REHAB UNITS	NEW UNITS
LITTLETON	0.32	0.	53.
LYNN	1.81	127.	170.
LYNNFIELD	0.58	10.	85.
MALDEN	1.04	84.	88.
MANCHESTER	0.36	0.	59.
MARBLEHEAD	0.74	36.	86.
MARLBOROUGH	0.90	63.	84.
MARSHFIELD	0.49	33.	48.
MAYNARD	0.46	28.	47.
MEDFIELD	0.36	5.	54.
MEDFORD	1.00	83.	81.
MEDWAY	0.37	16.	44.
MELROSE	0.84	25.	113.
MIDDLETON	0.35	0.	58.
MILFORD	0.64	37.	68.
MILLIS	0.32	0.	53.
MILTON	1.35	0.	222.
NAHANT	0.35	0.	57.
NATICK	1.05	24.	148.
NEEDHAM	1.57	14.	245.
NEWTON	2.69	121.	322.
NORFOLK	0.37	5.	56.
NORTH READING	0.47	18.	59.
NORWELL	0.39	16.	49.
NORWOOD	0.91	56.	94.
PEABODY	1.25	105.	101.
QUINCY	2.22	161.	205.
RANDOLPH	0.66	17.	91.
READING	0.57	0.	93.
REVERE	1.67	93.	182.
ROCKLAND	0.52	22.	64.
ROCKPORT	0.44	24.	48.
SALEM	1.41	63.	169.
SAUGUS	0.86	17.	124.
SCITUATE	0.47	18.	59.
SHARON	0.53	13.	74.
SHERBORN	0.37	0.	61.
SOMERVILLE	2.89	169.	306.
SOUTHBOROUGH	0.39	3.	60.
STONEHAM	0.63	0.	104.

M. A. P. C.

	INDEX	ALLOCATIONS	
		REHAB UNITS	NEW UNITS
STOUGHTON	0.58	1.	95.
STOW	0.32	0.	52.
SUDBURY	0.53	7.	97.
SWAMPSCOTT	0.53	11.	76.
TOPSFIELD	0.32	0.	52.
WAKEFIELD	0.67	33.	76.
WALPOLE	0.57	18.	76.
WALTHAM	2.13	130.	221.
WATERTOWN	1.51	47.	202.
WAYLAND	0.52	0.	86.
WELLESLEY	0.98	29.	132.
WENHAM	0.32	0.	53.
WESTON	0.72	0.	118.
WESTWOOD	0.63	40.	64.
WEYMOUTH	1.24	82.	122.
WILMINGTON	0.63	18.	86.
WINCHESTER	0.68	9.	102.
WINTHROP	1.07	26.	149.
WOBURN	0.99	49.	113.
WRENTHAM	0.30	0.	50.

OLD COLONY PLANNING REGION

	INDEX	ALLOCATIONS	
		REHAB UNITS	NEW UNITS
ABINGTON	8.05	16.	53.
AVON	3.26	0.	28.
BRIDGEWATER	5.61	16.	32.
BROCKTON	41.37	150.	206.
EAST BRIDGEWATER	5.63	14.	34.
EASTON	10.79	10.	83.
HALIFAX	0.97	3.	5.
HANSON	6.90	16.	43.
PEMBROKE	5.00	30.	13.
WEST BRIDGEWATER	5.23	30.	15.
WHITMAN	7.19	13.	49.

NEW UNITS	REHAB UNITS
.0	0.
7.	0.
0.	0.
1.	0.
1.	0.
3.	

CAPE COD PLANNING REGION

	INDEX	ALLOCATIONS	
		REHAB UNITS	NEW UNITS
BARNSTABLE	21.74	6.	23.
BOURNE	6.68	0.	9.
BREWSTER	1.61	0.	2.
CHATHAM	4.13	3.	3.
DENNIS	8.44	0.	11.
EASTHAM	1.11	0.	1.
FALMOUTH	10.94	0.	15.
HARWICH	8.30	6.	5.
MASHPEE	3.01	0.	4.
ORLEANS	2.39	0.	3.
PROVINCETOWN	7.44	6.	4.
SANDWICH	9.21	0.	12.
TRURO	1.04	0.	1.
WELLFLEET	3.27	4.	0.
YARMOUTH	10.69	12.	2.

DUKES COUNTY PLANNING REGION

	INDEX	ALLOCATIONS	
		REHAB UNITS	NEW UNITS
CHILMARK	3.53	0.	0.
EDGARTOWN	22.77	0.	7.
GAY HEAD	0.0	0.	0.
GOSNOLD	5.60	0.	1.
OAK BLUFFS	10.95	0.	1.
TISBURY	20.99	0.	3.
WEST TISBURY	6.16	0.	1.

NANTUCKET TOWN

NANTUCKET	0.0	0.	0.

		.05
		1.
		22.
		1.
		14.
		72.
		0.
		51.
		11.
		12.
		24.

SOUTHEASTERN MASSACHUSETTS PLANNING REGION

FALL RIVER SUB-AREA

	INDEX	ALLOCATIONS	
		REHAB UNITS	NEW UNITS
FALL RIVER	35.08	483.	130.
FREETOWN	8.09	22.	119.
SOMERSET	37.48	31.	624.
SWANSEA	9.78	30.	141.
WESTPORT	9.58	46.	121.

NEW BEDFORD SUB-AREA

ACUSHNET	7.03	40.	54.
DARTMOUTH	31.63	60.	364.
FAIRHAVEN	13.36	58.	121.
MARION	1.98	0.	27.
MATTAPOISETT	2.40	13.	19.
NEW BEDFORD	42.03	458.	105.
ROCHESTER	1.57	20.	1.

PLYMOUTH SUB-AREA

CARVER	6.55	6.	22.
KINGSTON	2.20	8.	1.
LAKEVILLE	10.55	4.	40.
MIDDLEBOROUGH	23.00	83.	14.
PLYMOUTH	32.13	63.	72.
PLYMPTON	3.87	16.	0.
WAREHAM	21.71	40.	51.

PROVIDENCE SUB-AREA

ATTLEBOROUGH	24.15	78.	111.
BERKLEY	3.54	6.	22.
DIGHTON	3.13	0.	24.
MANSFIELD	5.61	34.	10.
NO ATTLEBOROUGH	9.68	41.	35.
NORTON	7.11	10.	46.
PLAINVILLE	4.03	31.	0.
RAYNHAM	7.02	0.	55.
REHOBOTH	7.02	34.	21.
SEEKONK	9.75	12.	64.
TAUNTON	18.95	136.	12.